VOL. XII, OLD SERIES. PHILADELPHIA, SEPTEMBER, 1898. VOL. I. NO. 9. NEW SERIES.

PUBLISHED IN CONJUNCTION WITH
Sajous's Annual and Analytical Cyclopædia of Practical Medicine.
PRICE OF THIS JOURNAL, SEPARATE, $5.00 PER YEAR.

THE Monthly Cyclopædia OF Practical Medicine AND UNIVERSAL MEDICAL JOURNAL.

EDITED BY
CHARLES E. de M. SAJOUS, M.D.,
PHILADELPHIA.

LEADING ARTICLES: "Amenorrhœa." "Gout." "Sterility." "Yellow Fever."

THE F. A. DAVIS CO., Publishers.
Office: 1914 and 1916 Cherry Street, Philadelphia, Pa., U. S. A.
BRANCH OFFICES: New York, U. S. A., 117 W. Forty-Second St.; Chicago, Ill., U. S. A., 9 Lakeside Building.

Exchanges and editorial matter to be sent to 2043 Walnut Street, Philadelphia, Pa.
All letters concerning subscriptions, removals, advertisements, etc., to be sent to the Publishers.
This Journal should be carefully preserved for binding as an additional volume of the Cyclopædia at the end of each year.

Registered at the Philadelphia Post-Office as Second-Class Mail Matter.

THE

MONTHLY CYCLOPÆDIA

OF

PRACTICAL MEDICINE.

Vol. XII. Old Series. PHILADELPHIA, SEPTEMBER, 1898. Vol. 1. No. 9. New Series.

TABLE OF CONTENTS.

Cyclopædia of the Year's Literature.

AMENORRHŒA.

Etiology.—Alexander Simpson[1] argues that just as modern pathologists have suggested that in the case of anuria uræmia results, so in the case of amenorrhœa, where the menstrual flow does not occur, or does not escape, there is an element retained in the blood which

[1] Practitioner, Aug., '98.

causes a general disturbance in the system that might be called "menorrhæmia." The nervous system is at fault in many cases of amenorrhœa. In some cases patients get a chill, and that, perhaps, first affects the nervous system, while in others there is simply a mental impression, in which the patient has either a dread of conception or an eager hope of conception, and it has been noted that under one or the other of these emotional states the menstrual flow will sometimes be arrested for a month or two. So also in cases where the patient has had a fright or a disappointment or has been subject to a fit of passion. For the healthy performance of menstruation it is absolutely necessary that there should be a healthy circulatory apparatus and a healthy circulating fluid. Here, again, we find that in many of the cases of amenorrhœa there are defects in the circulatory apparatus, such as heart disease, or there is imperfect development of the blood-vessels. Everything which depresses the general health in a female is apt to show itself in depressing the menstrual function, in some cases even to its complete disappearance. But besides looking to these necessities for menstruation,—a healthy nervous system, good blood, and a good circulatory apparatus,—one must look to the seat of the menstrual flow and the associated organs, because the menstrual function is dependent not only on the condition of the uterus, but also on the condition of the associated organs. There is a tendency to refer the menstrual flow merely to conditions of the uterus and to the nervous system and the blood; but we must keep very strictly in view that the ovaries play a most important part in determining the regular healthy occurrence of menstruation. It has recently been shown that the nerve-influence of the ovary is serviceable to the uterus in that it keeps up the steady rhythmical contractions that go on in the unpregnated uterus. So where the ovaries have become diseased, or have had to be removed, the uterine contractions that should go on normally, and become more pronounced at the menstrual periods, are absent. In those cases where the follicular stroma of the ovary has been the seat of an inflammatory process during the infectious fevers, the patient may have an amenorrhœa which may remain and become permanent.

An interesting case has been observed by Robert A. Reid,[2] in a young woman who presented many of the usual signs of pregnancy, including cessation of the menses, prominence of the abdomen, etc. On examination enormous deposits of adipose tissue were found in the abdominal walls, while the uterus was small—smaller indeed, than usual. Subsequent events proved it to be a case in which obesity had led to disturbance—if not, indeed, to early disappearance—of the menstrual function.

Treatment.—Leuf[3] states that amenorrhœa may be caused by an underdevelopment of the uterus, or its atrophy, or to some neurotic influence. Cessations due to wasting diseases are conservative, the flow simply stopping because nature cannot permit the loss of blood in view of the other strain upon the system. An atrophied uterus requires the same treatment as an underdeveloped one, though it is less likely to respond to stimulation if it has existed for a long time, for retrograde changes are generally not as easily reversed as natural development is stimulated. The flow is most readily stimulated by the bipolar application of

[2] Mass. Med. Jour., Aug., '98.
[3] Med. Council, Oct., '97.

the long, fine-wire, secondary faradic coil two or three times a week for from two to six months, continuing for ten or fifteen minutes at each sitting. It has also been accomplished by the passage of a similar current through the pelvis from the sacrum to the hypogastrium, the anode being behind. When the flow is simply scanty, the galvanic current is better, the cathode being in the uterine cavity and the anode upon the abdomen, with a current-strength of from 50 to 75 milliampères. The leading fact should not be forgotten that the cathode increases circulation and nutrition, and that the anode has the opposite effect.

W. E. Fothergill[4] claims that senecio will not cause abortion, or in any way influence the course of pregnancy. The practical utility of a drug which will cure functional amenorrhœa, but will not interfere with pregnancy, is, of course, obvious. A girl, for instance, is brought to the practitioner by her mother, amenorrhœa being the only symptom complained of. A physical examination is, for the time, out of the question, and a series of interrogations may cause unnecessary suffering. Functional amenorrhœa may be the condition or pregnancy. Under these circumstances, senecio may be safely prescribed before making a diagnosis, as it will probably cure the one, and certainly will do no harm to the other.

Eleven cases observed of true functional amenorrhœa in which senecio gave excellent results. No general disease, such as anæmia, or phthisis, was present, nor was there any deficiency, congenital or other, of the reproductive organs. The nervous mechanism which initiates the menstrual flow was, however, inactive in each case, and senecio appeared to be effective in stimulating it into action. In cases of anæmia, however, and other conditions of exhaustion, due to disease, senecio has been found quite inactive in restoring menstruation. In such cases the cause of amenorrhœa is, of course, that the patient has no blood to spare; and treatment by a direct emmenagogue cannot be expected to have any effect, while indirect treatment by food, iron, etc., is indicated.

According to Alexander R. Simpson,[5] no practitioner wants to merely stimulate uterine flow unless he also builds up the patient's system. In most cases the iron, when prescribed medicinally, has to be administered for some length of time. In recent times the preparation that has most favor is the Blaud preparation of iron, whether in the form of a pill, tabloid, or a palatinoid. These preparations are given for at least six weeks to an amenorrhœic girl with pale mucous membranes. Where the iron of itself does not produce improvement in the blood, it sometimes brings about menstruation if it be given in combination with some other minerals—such as preparations of zinc or arsenic. As a rule, arsenic and iron bring about the conditions favorable to menstruation. Manganese, also, is very valuable in the treatment of amenorrhœa. In the managements of these patients it is important to keep in view that many of them are the subjects of constipation; hence, aloes-and-iron pill is a very favorable preparation.

In a clinical report on the value of ferratin in anæmic conditions Dr. C. Earle Williams[6] reports the following interesting case, typical of frequent occurrences in general practice:—

T. P., age 19, had not menstruated for

---

[4] Edinburgh Med. Jour., May, '98.
[5] Practitioner, Aug., '98.
[6] Amer. Therapist, Aug., '97.

five months. Her complexion was chlorotic, with large, dark rings around the eyes. There was dyspnœa and palpitation on the slightest exertion, constipation sometimes lasting seven days. Blood-count showed: red cells, 3,000,000; hæmoglobin, 52 per cent. She was placed on ferratin, 8 grains four times daily, with alœtic purges, combined with perfect rest. The dose of the ferratin was gradually increased to 12 grains four times a day, resulting in complete recovery. All the distressing symptoms left; menstruation returned, quantity and quality good; red cells, 4,600,000; hæmoglobin, 92 per cent.

The following formula has been followed by good results in amenorrhœa:—

℞ Strychnine sulphate, $^1/_2$ grain.
Iron peptonate,
Manganese lactate,
Scammony, of each, 20 grains.

To be divided into forty pills. Two to four pills to be taken every night on going to bed. (Lutaud.[7])

GOUT.

Diagnosis.—Watson Williams[8] states that in some countries gouty affections of the throat are even more common than rheumatic affections. The symptoms are very similar, though the pain may be more intense. Small tophi have been seen on the vocal cords and at the crico-arytenoid joint, though this condition is exceedingly rare. Gouty deposits in the laryngeal mucous membrane have been diagnosed as cancer. When gout has been correctly diagnosed as the pathological cause of the throat disease, the only local treatment should be in the form of mild, soothing sprays. Internally, colchicum and its preparations, iodides, Vichy water, etc., with suitable diet and hygiene should be given.

A. H. Buck[9] claims that a patch of eczema, of spontaneous development, signifies the existence, in the subject possessing it, of a gouty diathesis. As it happens, the floor of the external auditory canal is apt to be the very first spot on the surface of the body where an eczematous inflammation develops. This condition constitutes a valuable guide-post, pointing as it does, at a very early stage, to the existence of that disturbed state of the metabolic processes to which the term "goutiness," or a "gouty diathesis," is applied. Different localities or different tissues are involved at different times. At one time it is the skin of the external auditory canal and auricle; at another time the dermoid surface of the tympanic membrane, as well as the walls of the canal; at still another the adjacent bone tissue is affected; and, finally, the disease locates itself in the mucous membrane of the tympanic cavity, and particularly in that part of it which borders upon the two fenestræ.

Etiology.—Froelich[10] remarks that the theory must be regarded as proved which attributed the formation of uric acid in the body to a process of leucolysis following on a leucocytosis. A review of the literature upon tissue-necrosis in gout leads the writer to state definitely that the process is caused by a poison, probably a nucleic acid, acting in a similar way to that in which tissue-necrosis is caused by lead in plumbism.

Nobecourt[11] says that a form of gout exists related to saturnine intoxication. It is slowly established. The patient does not exhibit the various morbid

[7] Jour. de Méd. de Paris, Dec. 19, '97.
[8] Laryngoscope, Apr., '98.
[9] Amer. Jour. Med. Sci., Mar., '98.
[10] Jour. Amer. Med. Assoc., Jan. 3, '97.
[11] Sem. Méd., Apr. 23, '97.

phenomena of latent gout common in subjects of this diathesis throughout their early life. He is subject rather to colic, arthralgia, encephalopathy, apoplexy, albuminuria, paralysis, or dorsal tumor of carpus. He is unlike the hereditarily gouty, pale, thin, and anæmic. The mode of evolution of saturnine gout is analogous to that of ordinary gout. It resembles in some respects the gout of patients debilitated by any cause. The distinguishing features are frequent repetition of the attack, rapid generalization of the arthritis, and one frequent solitary visceral manifestation, namely: interstitial nephritis. Less-common phenomena are the rapid transformation of the acute into the chronic form, and the early development of tophi. Diagnosis is based on the same considerations as in ordinary gout. Again, gout in a saturnine patient is not necessarily saturnine gout.

Cornillon[12] remarks that, although the primary manifestations of gout are rarely initiated by traumatism, an acute attack of gout already pre-existing may be thus begun. The writer, however, details cases in which injuries were followed by the first appearance of the disease. Thus, a man of 53 years fell, dislocating his left shoulder. The dislocation was reduced at once, but three days afterward the left knee became swelled, red, and hot. The next day the great toe on the same side became similarly affected. Several days afterward all the joints were free of gout, but the right knee presented symptoms of it at a later date. The administration of salicylate of soda arrested the attack in about two weeks. This patient might probably have developed gout at some period or other, whether injured or not, but the injury precipitated the external symptoms of an inherent dyscrasia.

Pathology.—N. S. Davis, Jr.,[13] states that the atheromatous changes which take place in the arterioles throughout the body, including those of the kidney, in the gouty subject are well known. But some points in connection therewith are often overlooked. One of these is the gradual progress of the renal disease, the organ being affected in spots, with intermissions in the degenerative changes which are microscopical in size, until finally large areas are involved. In these cases the glomeruli and tubules are attacked in a way at times to cause scarcely an appreciable symptomatology, whereas the same changes coming on suddenly, as in cases of a different etiology, cause striking clinical and urinary manifestations. The arterial changes in the nervous system lead to various nervous disturbances by interference with the nutrition of nerve-centres. Cerebral manifestations may arise from uræmia or from thrombosis of the cerebral arteries.

A. P. Luff[14] believes that a functional affection of the kidneys always precedes gouty manifestations, and that this functional lesion, which may be started by various agents and causes (among which are excessive indulgence in nitrogenous foods, wines, and beer; the toxic effect of lead; and the influence of nervous impulses, such as mental shocks, severe accidents, etc.), may subside on the removal of the exciting cause, or it may pass on to a structural lesion, which is then of the contracted granular type and may also be transmitted by heredity.

The anatomical seat of the kidney affection is probably in the epithelium of the convoluted tubes, as that is the

---

[12] Progrès Méd., Jan. 2, '97.
[13] Med. Rec., July 10, '97.
[14] Indian Med. Rec., July 1, '98.

primary seat of disease in granular kidney and the increase of interstitial tissue is probably a secondary change, while granular kidney is not always evidenced by the occurrence either of albuminuria or of dropsy, and during life there may be no external manifestations of the existence of such renal mischief as the post-mortem may disclose.

On the whole, there is abundant evidence showing the direct connection between kidney trouble and gout, since uric acid has always been found in the blood in cases of renal disease, while uratic deposits are frequently found in the kidney and joints of gouty subjects and in the joints of persons with renal disease, but who have never been known to have had ostensible gout, and kidney mischief is frequently met with at the post-mortem of gouty subjects.

Alterations in the metabolism of the liver necessarily affect the formation, excretion, and daily elimination of uric acid by healthy persons; and, as variations in the metabolism of the liver are induced by changes in the quality and quantity of food ingested, by the amount of exercise, and by various nervous influences, it can be readily understood why liver trouble of some kind or another frequently accompanies gouty dyspepsia, and the fact is explained how several observers, unable to dissociate the connection between liver troubles and gout, have attributed the formation of uric acid to the liver.

The uric acid formed in the kidneys is at once converted into the quadriurates of ammonium, potassium, and sodium, and in healthy persons excreted dissolved in the urine, from which they sometimes separate, on cooling, as a deposit of "amorphous urates." In gouty conditions these urates are absorbed into the blood, where the sodic carbonate converts the ammonium and potassium quadriurates into sodium quadriurate, which is an unstable salt and is gradually transformed into the less soluble and less easily excreted sodium biurate, which first passes into the hydrated or gelatinous modification, but, if it be present in the blood in greater amount than that fluid can retain in solution, it passes with the lapse of time and increasing accumulation into the almost-insoluble anhydrous or crystalline condition, and is deposited in those tissues (of the connective-tissue class) which, either on account of having received previous slight injuries or because of their poor vascular supply, favor its deposition.

C. S. Bull[15] finds, associated with gout, changes in the walls of the blood-vessels of the retina, choroid, and optic nerve, including arteries, capillaries, and veins. Retinitis of a peculiarly-localized character, confined to the posterior zone of the fundus, with or without hæmorrhages in the retina and vitreous, and characterized by a peculiar yellowish exudation, occurring in clearly-defined patches. Optic neuritis, generally with, but sometimes without, an accompanying retinitis. The changes in the fundus are always bilateral, though rarely symmetrical in the two eyes. The lesion may begin simultaneously in the two eyes; but this is by no means always the case. The degenerative changes in the walls of the blood-vessels, both arteries and veins, are at first very minute and often overlooked. The general angiosclerosis and the patchy exudation in the retina cause marked impairment of central vision, but little impairment of the peripheral vision, and

[15] Trans. Fourth Congress of Amer. Phys. and Surg., page 4, '97.

the disease never ends in blindness. The loss of central vision is always progressive up to a certain point. Improvement of the vision after the retinal disease is established cannot be expected, though in favorable cases the existing vision may be maintained. Hæmorrhages into the retina are rare except in the comparativly early stages of the disease. The most-marked feature in the ophthalmoscopic picture is the development of the angiosclerosis in the vessels of the retina.

Another almost equally marked symptom is the peculiar yellowish granular exudation in the retina, located by the ophthalmoscope around the posterior pole of the eye, and generally leaving the macula intact until late in the course of the disease. This exudation is shown by the microscope to be mainly in the nerve-fibre layer, though found in all the layers except that of the rods and cones. The changes in the optic nerves seem generally to be intra-ocular, but have been traced occasionally for some distance back of the eyeball.

Oliver[16] says that the eyeball is nothing more than a lymph-holding end-organ, constantly changing its fluid constituents, and that in these structures changes can be produced by uric acid and urates. The presence of material in the outer coats of the eye that is so similar to that found in any joint shows how the external coverings of the organ and its incompassing capsule can be seriously disturbed by fluid change, inflammatory exudate, and inorganic deposit as the result of gouty diathesis. The lids, conjunctiva, and lacrymal apparatus are often swelled and excruciatingly painful. The inflammation is very rapid in onset, and quickly subsides by the application of dry heat and employment of constitutional measures. Calcified Meibomian glands are frequently seen in middle-aged and elderly subjects as evidence of similar changes found elsewhere. Keratitis (peculiarly band-like in character) has been described by some authorities. The sclera gives evidence, particularly in the male subjects, by a series of extremely-fugitive signs. Generally circumscribed, the redness is not rarely associated with intense dread of light and frequent attacks of severe pain, with copious lacrymation. The condition suddenly disappears by the local use of heat and the internal administration of large doses of alkaloids. The iris is often also involved. In the ciliary body and choroid the diagnosis is less easy and the evil consequences are greater. Where the retina and optic nerve are concerned the ophthalmoscopic picture is generally typical. Hæmorrhages with changes in the size of the blood-vessels often appear early in the case. Later, shrinkage, atheroma, and sclerosis of the vessel-walls are apt to appear. At times these are associated with peculiar, glistening, yellowish bodies found in the region of the macula.

Riehl[17] argues that in gout urate crystals are deposited in unaltered living tissues, and that the assumption that necrosis of the tissues must precede the deposit of the salts must be given up. Whether the tissue-increase about the urate deposits is due to mechanical or chemical irritation is not yet clear. Gouty nodules are probably formed as follows: First, a deposit of crystals in the lymph-spaces and vessels, and in the connective tissue itself, due to this inflammation of the surrounding tissue with granulation-tissue and giant-cells. The failure to find urates in the healthy

[16] Jour. Amer. Med. Assoc., July 31, '97.
[17] Wiener klin. Woch., No. 34, '97.

tissues is due, in part, to having examined tissues from the cadaver, and, in part, to faulty methods of hardening.

Kittel[18] describes, in the aponeurosis of the foot and in the bones, a collection of small particles resembling concretions of sand, which may, by the pressure, interfere with the locomotion of the patients. In his opinion, these are the result of interference with the circulation of the foot, especially long-continued exposure of the foot to wet. Under these conditions a gradually-progressive degeneration takes place, which is followed by a necrosis of the tissues; a deposit of urates follows; stiffness, deformity, and distortion of certain of the joints takes place. The clinical symptoms are not those of true gout, but are considered by the writer to be a typical form of gout. Medicinal treatment against gout is useless, as the deposits of the urates are well encapsulated in necrotic tissue beyond the reach of any means of promoting absorption. For treatment the writer recommends mechanical exercise with massage, accompanied by cloths wet in alkaline solutions.

Treatment.—Luff[19] says that the treatment of gout should aim at (1) checking excessive formation of uric acid in the kidneys, (2) preventing its absorption into the blood, and (3) promoting the removal of uratic deposits by facilitating the elimination of the quadriurate and biurate contained in the fluids of the body.

To check the excessive formation of uric acid, liver-metabolism should be promoted, and congestion of the portal system relieved by regulating the diet and regimen. Colchicum and guaiacum, as stimulants of hepatic metabolism, are very useful in many forms of gout. Constipation and the congestion of the portal system may be relieved by occasional doses of blue pill followed by an Epsom-salts purge.

To promote the elimination of the quadriurates formed in the kidneys and so prevent their absorption into the blood is to strike at the primary evil in the causation of gout. To promote this diuresis should be increased and the activity of the urine diminished. Citrate of potassium is a good diuretic which not only increases the solubility of the quadriurates, but also diminishes the acidity of the urine and should be pushed until moderate alkalinity of the urine is produced.

The removal of uratic deposits and the elimination of quadriurates and biurates from the system may be attained by free diuresis, baths, and suitable exercise, and the careful selection of a mixed diet with a fair amount of vegetable food, since the mineral constituents of certain vegetables, such as Brussels sprouts, cabbage, French beans, spinach, turnips, and turnip tops possess to a remarkable degree the double function of inhibiting the conversion of sodium quadriurate into the biurate and increasing the solubility of the latter; but the idiosyncrasy of each patient to various articles of diet must be made the subject of careful observation.

Ransom[20] regards the use of drugs, other than tonics and digestives, in cases of gouty diathesis which show no actual symptoms of the disease as of doubtful value. The writer's treatment consists of six tumblerfuls of water daily, three of which may be taken hot; small doses of calomel followed by sulphate of sodium, or, instead of the calomel, a pill

---

[18] Berliner klin. Woch., No. 17, '97.
[19] Indian Med. Rec., July 1, '98.
[20] Med. Rec., Feb. 6, '97.

containing colchicum, colocynth, and calomel; and the taking of medicated baths. Regular bathing is regarded as almost the most important item, and next to it regular exercise, out-of-doors if possible. All forms of meat are allowed at least once a day, or twice if desired, but no vegetable which grows underground and a restricted amount of sweets. In the treatment of chronic gout, in the intervals between acute attacks, the use of mineral baths, with massage and exercise, are regarded as of the greatest value. If there be some local subacute affection present, the exhibition of calomel, followed on the day after by iodide of potassium and colchicum-wine, may be given, and continued for several weeks. An ointment containing iodine and iodide of potassium applied to the joints is often of service, or, if there is much pain, ichthyol ointment from 30 to 50 per cent. in strength may be used instead. In acute gout treatment should commence with a full dose of calomel, followed by doses of 15 drops of colchicum-wine, which may be increased or diminished according to the absence or presence of toxic symptoms. If the pain is very severe, opium in the form of Dover's powder is indicated.

Armstrong[21] relates that during the last few years he has given trial in various cases of gouty arthritis and recurrent renal calculi to a method of treatment based on the prolonged administration of only red meat and hot water. Very marked improvement has resulted, which persists in spite of gradual return to an ordinary dietary. Observations on auto-intoxication in relation to the causation of gout and rheumatoid arthritis had led the writer to believe that it is the complex chemical changes brought about by the admixture of red meats with carbohydrates and sugar that causes the excessive formation of uric acid. His plan is to give the patient a daily allowance of from one to four pounds of lean beef, —steak minced and cooked in various ways,—the patient drinking from one to five pints of hot water, and avoiding all starchy, saccharine, and fermentative articles of food. This treatment is indicated in obstinate chronic gouty arthritis, in recurrent uric-acid calculi, in frequent and intractable migraine, and in cases of persistent gouty dyspepsia. It has proved especially useful in the presence of symptoms of amylaceous and intestinal dyspepsia and of excessive formation of hydrogen sulphide, urates, indican, skatol, creasol, and other toxins. The carbohydrates, by their affinity for oxygen, interfere with the due oxidation of the tissues. Whatever poisonous matters remain in the system are readily eliminated by the taking of the hot water, which also flushes the stomach, liver, and kidneys. The treatment is irksome and trying and must of necessity be carried out with great strictness; therefore its use should be confined to the more difficult cases. It should be prescribed but rarely, and then only under the most careful supervision in cases in which the heart or kidneys are diseased. Used with due care, it is a most efficient and brilliant addition to the therapeutic measures.

In the opinion of H. C. Wood,[22] there are three great manifestations of the same thing, universally allied. They are rheumatoid arthritis; podagra, or true gout; and articular rheumatism. One must not attempt to treat gout, but treat the person who comes before him. There is diet for the gouty, but there is a diet for the person. Nevertheless, in

[21] Brit. Med. Jour., May 1, '97.
[22] Med. Rec., July 10, '97.

the large majority of cases sugars and starches must be cut off. But in spare gouty subjects farinaceous diet may be essential. Milk probably suits the largest number of gouty patients. Patients who can take but little exercise at first can gradually be led up to the point of taking a great deal of exercise, and this is essential for further attacks. Strontium salicylate is less disturbing than salicylate of sodium. In some instances it agrees better with the patient when combined with digitalis and strychnine. Medicines, however, will not eradicate the diathesis.

George W. Tobias[23] says that an elegant and perfectly-safe preparation of the drugs, and one which in his hands has never failed, is colchi-sal (colchiceinmethyl salicylate). This drug is dispensed in capsules of 20 centigrammes and each contains a quarter of a milligramme of the active principle of colchicum.

F. Levison,[24] believing that the uric-acid output does not depend upon the intake of albuminoids, but rather that the disease is secondary to renal degeneration, which, in turn, is caused by the failure of the uric acid to remain in solution, and further noting that the nucleins increase the production of uric acid, would exclude from the dietary all substances rich in nuclein, as thymus gland, liver, kidney, and pancreas. Alcohol, especially in high-percentage liquors and in concentrated solutions, not only increases uric acid, but also directly injures the kidneys, and therefore should be forbidden. Coffee seems to increase the amount of uric acid. In order to prevent the precipitation of uric acid in the kidneys, large quantities of fluid should be taken; the best is boiled water or milk. Mineral acids are not allowed, but vegetable acids, especially those which are oxidized to alkaline carbonates, can be used without harm. Excessive alkalinization of the urine leads to two dangers: (1) the formation of a phosphatic calculus, or (2) in patients whose kidneys are already diseased and in whose blood there is already commenced a storing up of uric acid, there supervenes an acute attack of gout from an excessive amount of sodium salts in the blood and tissues. So long as the reaction of the morning urine is only feebly acid and the sediment obtained by centrifuge contains no uric-acid crystals, all is attained that is attainable from the use of alkalies, and further increase of the dose is not only unnecessary, but may be directly harmful. Recognizing the dangers of excessive use of the alkalies, von Noorden makes use of calcium carbonate in the treatment of gravel. Calcium carbonate is not eliminated by the kidney, but in the intestines unites with phosphoric acid and is eliminated as calcium phosphate. Thus phosphoric acid being diminished in the urine, the triple phosphates are then more largely formed, while the monosodium phosphate is in a smaller amount; so that the urine remains acid and yet holds uric acid in solution. For acute gouty attacks the greatest reliance is placed upon colchicum. For the stiffness and deformities various methods have been in use—dietetic regulations, massage, iodine-painting, and especially various warm baths.

Recently Grawitz makes use of hot sand-baths; the dry sand is heated to a temperature of 104° to 122° F. and the limb wrapped in it. This has not, according to the author, benefited any instance of arthritis, although it relieves

[23] Kansas City Med. Rec., Mar., '97.

[24] St. Petersburger med. Woch., Nos. 1, S. 1; S. 9, '97.

nerve-pains, as in neuritis after influenza.

Of much greater value is the electrical treatment, making use of a battery of forty-eight large Leclanché cells for thirty minutes. The positive pole, connected with a carbon electrode, is immersed in a 2-per-cent. solution of lithium chloride which has been made alkaline with lithium carbonate. The negative carbon electrode is placed in a very weak sodium-chloride solution. The portion of the body to be treated is placed in the lithium-bath and a convenient part, as the hand or foot, is put into the salt solution. A current of 20 to 30 milliampères is now passed, although some patients cannot bear more than 10. Of the 15 patients who received this treatment, 10 were markedly benefited, while in the remainder the results were less favorable or negative. The results claimed are that stiff and useless joints become movable and serviceable; that the pains are completely removed, and the muscular atrophy disappears. The theory of the action is that lithium, at the positive pole, is separated from the lithium-chloride solution and carried into the body in an available form; so that readily-soluble lithium urate is formed from the deposited urates.

R. Newman[25] concludes that there is a variety of causes and symptoms of gout. The diet, and treatment, etc., cannot be stated as a routine for all cases.

Static electricity is the best treatment in hereditary gout, and will prevent attacks, if used judiciously at the right time. Static electricity and other electric currents will cure many of the other varieties of gout. Static electricity is generally diffused in the body, and penetrates deeply through tissues and joints. It acts as a general tonic. The breeze allays any pain, in most instances, in five minutes. In very painful affections of the joints it needs several applications before the pain and infiltration are removed; but, when an attack is in progress, after three applications in a single day freedom of motion and cessation of pain should be expected. It replaces exercise and acts as passive motion.

STERILITY.

Etiology.—G. Pujol[26] has investigated fully the question of uterine fibroids and sterility, and finds that all agree as to the frequent co-existence of uterine fibroids and sterility; but all are not at one as to the kind of relationship, the majority regarding the sterility as the result of the tumors, some looking upon the fibroids as the consequence of the sterility. The writer believes that a sufficient explanation of the sterility is found in the various modifications which the fibromyomatous neoplasms produce in the uterus that contains them. These are chiefly metritis (especially granular), inflammatory affections of the tubes, and atrophy in the ovaries of the Graafian follicles; less efficient are the uterine hæmorrhages or hydrorrhœa, spasmodic contractions of the uterus, its displacements, and slight attacks of pelvic peritonitis and the occasional existence of vaginismus as a complication.

In an article on sterility[27] E. Rode speaks of a minor abnormity of formation which consists in a prolongation of the posterior columna of the vagina on to the hymen, whereby the hymen is

[25] Med. Rec., Dec. 11, '97.

[26] Arch. de Gynec. et de Tocol., Sept. to Dec., '96.

[27] Tidskrift for den norske Laegeforening, '96.

rendered very resistant. A simple remedy is that of a transverse incision of the columna behind the hymen, followed by a suture so contrived as to convert the wound into an anterior-posterior one.

Vedeler[28] reports his investigation of 310 sterile women, all of whom had been married more than one year. Seventy-two had been married ten or more years, and the average duration of married life in the remaining was three years. The examination of 50 of the husbands of these women determined that 38 surely had had gonorrhœa, and it was also determined that 34 (68 per cent.) of these had infected their wives. He says it can be concluded that the result of the examination of these 50 sterile marriages be correct, then 235 of the 310 husbands must have had gonorrhœa, and also that 210 wives were infected. That this last approaches the truth is shown in that in 198 (44 per cent.) of the 310 women examined the same inflammatory signs of gonorrhœa were found as in the 34 whose husbands undoubtedly had had gonorrhœa.

Benzler[29] made careful and reliable inquiries from 31 men, who were at a previous time of their military service afflicted with epididymitis bilateralis, and who later on married. Of these 38.7 per cent. proved to be sterile, 61.3 per cent. produced posterity—some of them quite a numerous one. In the latter series of men the epididymitis was only in 3 instances associated with vasitis, while in the cases which led to sterility this complication existed in 50 per cent. of the cases. The prognosis in cases of bilateral epididymitis regarding the potentia generandi is, therefore, much more favorable than it is commonly believed to be.

Treatment.—Jones, of Edinburgh,[30] states that belladonna is followed by more or less benefit in every disease to which the female sexual organs are liable; and in married women who, though apparently enjoying the best of health and never suffering from any irregularity of the sexual organs, are yet sterile, the exhibition of belladonna internally for some weeks is so frequently followed by pregnancy as to preclude considering the occurrence as a mere coincidence. During the exhibition of the drug, the external genitals become more relaxed, and the os and the cervix more pliable and softened.

W. Gill Wylie[31] describes the method he employs in the treatment of dysmenorrhœa and sterility as follows: "When a patient comes to me suffering from dysmenorrhœa and sterility, if the os is sensitive (and this is an indication for the tube), after excluding disease of the Fallopian tubes and other complications, I put her under ether, curette the uterus thoroughly after dilating freely, but not enough to split the cervix, and introduce the fenestrated drainage-tube. I also insert a retroversion pessary to keep the tube in place by holding the os uteri backward. No gauze is employed. A vulvar pad is applied and the patient put to bed, where she is kept quiet for a week. She is then allowed to get up and move about her room for several days. The tube is then removed, and, if she menstruates without pain at her next period, nothing more is done. If she does have pain, several months later I curette again and introduce a smaller tube, keep the patient in bed for a week, and then let her go home wearing the tube, enjoining her to keep the parts

[28] Centralb. f. Gynäk., No. 26, '97.

[29] Deutsche milit. Zeitschr., No. 4, '97.

[30] Columb. Med. Jour.; Mass. Med. Jour., Aug., '98.

[31] Amer. Gyn. and Obst. Jour., June, '98.

clean by an occasional douche. After the patient has passed through two or three periods, the tube is removed. Of course, all cases in which there is tubal disease are excluded. I have never had a case in which salpingitis or sepsis followed this treatment, although I have been employing it for ten years. I can take ten cases of typical dysmenorrhœa, with anteflexed uteri, and in a few weeks I will cure half of them; in a few months nine out of ten can be cured. In rare cases the treatment has to be repeated a third time. In sterility the results of this treatment have been marvelous. Women as old as 39 have been cured of sterility. The treatment is safe and successful."

YELLOW FEVER.

Diagnosis. — John Guitéras[32] states that there is no acute febrile disease in which there are so many signs that may be called pathognomonic. The diagnosis of the disease rests upon three such symptoms, namely: the facies, the albuminuria, and the want of correlation between the pulse and temperature. The facies are extremely characteristic. The appearance of the face is like that of measles before the eruption breaks out, with a more or less pronounced icteroid hue. In the first twenty-four hours, or forty-eight, it is by no means a distinct jaundice. The icteroid hue is often better seen at some distance from the patient than when the eye is closely inspected. In severe cases and on the second and third days of the disease the jaundice becomes more prominent, and later on it may be well marked. The mind is usually clear and there is a peculiar alertness and watchfulness that is not seen in other acute febrile diseases. The albumin appears in the urine usually on the third or fourth day of the disease. In many cases it is only a trace, but even then by a careful centrifugation granular casts may be found in the urine. The want of correlation between the pulse and the temperature may be a rather late manifestation and may be absent, especially in children. The characteristic feature is that quite often we find that, at the same time that the temperature may be rising, the pulse will be falling.

S. E. Archinard and R. S. Woodson[33] have discovered an agglutination-test to be used in the diagnosis of yellow fever. A drop of blood is taken from the lobe of the ear of the patient and dissolved in twenty times its volume of sterilized water. This is then placed in a culture-tube containing yellow-fever germs which have been active and increasing for twenty-four hours. In from five to thirty minutes after the drop of suspected blood, dissolved in twenty times its volume, is put into the culture-tube the germs in the blood become agglutinated and motility ceases entirely, which shows that the blood is that of a yellow-fever patient. If, however, agglutination does not take place, yellow fever is not present. The yellow-fever germ has been found in between 87 and 90 per cent. of the cases in which this test has been employed.

In a valuable monograph entitled "Yellow Fever: its Nature, Diagnosis, Treatment, and Prophylaxis," etc., by Officers of the United States Marine-Hospital Service, '98, R. D. Murray states that, differentially considered, dengue has a demonstrable rash in the fauces always, between the shoulder-blades generally, and often over the big joints and on the trunk. The pains of

---

[32] N. C. Med. Jour., Dec. 5, '97.

[33] Med. News, Feb. 5, '98.

dengue are in the bones and joints. A dengue patient is in pain and cannot lie still—he does not want to get up. Yellow-fever pains, except the head, are in the muscles, and the patient after four or five days is comfortable in bed, but wants to get up and work.

In malaria the symptoms usually appear after some days of malaise, loss of appetite, discontent, and a general tired feeling. Malarial fever nearly always appears in the day-time or when the victim is at work, and is ushered in with a positive chill. Constipation is the rule, but not so marked a feature as in yellow fever. The malarial tongue is swelled, tooth-marked, and heavy coated, with white edge and yellow or dirty top-area. A yellow-fever tongue is rarely indented; the tongue of the former soon shrinks and has a red edge and red tip, the red tip being diamond-shaped. Herpes does not occur in yellow-fever cases; it is common in malaria. This is, however, a late sign.

Etiology.—Eugene Wasdin[34] believes yellow fever essentially an air-borne infection, the entrance of which into the system has been supposed to be by way of the alimentary canal, the upper intestine serving the purposes of incubation of the causative germ, the absorption of its poison giving rise to the disease.

More recently it has been advanced that probably the germ of yellow fever enters the general circulation through the respiratory organs in some obscure manner, and, incubating in the blood, directly poisons this life-giving stream.

According to H. R. Carter,[35] all places within a yellow-fever infected district, or town even, are not infected or are infected in unequal degrees. The infection is especially confined to the habitations of men and their environment, and is conveyed a short distance, possibly 220 metres down the wind, from an infected focus. Two hundred and twenty metres is the maximum distance this infection can be conveyed. This observation (Melier's) is altogether exceptional, and less than half that distance covers the distance to which the infection is conveyed from a single focus.

The infection is heavy and hangs and spreads near the ground. It is unable to pass a close wall of any considerable height, although under the shady side of such a wall it may spread well when once started. It seems especially active at night, and certainly, out-of-doors, is less apt to be contracted on clear dry days.

The rate of propagation of out-door infection is increased in cities in dusty weather. Strong, steady winds in clear weather lessen the infection. There is no reason to believe that yellow fever as usually propagated in this country is water-borne—the fresh-water tanks of infected vessels have never been and are not now emptied at our maritime quarantines.

Edwin Klebs[36] makes the remark that yellow fever is transported by sick people, not by goods and not by water; the personal contagion is not direct or confined only to a very near contact; the contagion, emanating from a person, must be deposited in his surroundings before it can infect other persons. Disinfection of the sick and their surroundings is fully sufficient to destroy the germs and check the disease.

Bacteriology. — Havelburg,[37] having found in necropsies of yellow-fever pa-

[34] "Yellow Fever," etc., by Officers of U. S. Marine-Hosp. Service, '98.

[35] *Ibid.*

[36] Jour. Amer. Med. Assoc., Apr. 16, '98.

[37] Berliner klin. Woch., Nos. 23-26, '97.

tients great masses of a special micro-organism in the contents of the stomach, endeavored to isolate it in order to ascertain whether it was pathogenic or not. The alleged yellow-fever bacillus is very small, straight, and is, for the most part, isolated, the cohesion of two organisms being rather rare. The outlines of its extremities are especially well marked. It is easily stained by basic aniline colors, but not by Gram's method. It can be grown on a gelatin plate, forming in twenty-four hours a white spot which in from twenty-four to forty-eight hours becomes larger and assumes the form of a pin's head. The gelatin is not liquefied.

According to Sanarelli,[38] there does not exist any lesion truly pathognomonic of yellow fever, although the changes of yellow fever in their entirety constitute an anatomical criterion more clear and better defined than that of the majority of infectious diseases. The cadavers of the victims of yellow fever are either sterile or they are found to be invaded throughout by a mixture of micro-organisms. The specific microbe, to which the name of "bacillus icteroides" has been given, has never been found alone in the autopsies made. It must be sought for in the blood and in the tissues, and not in the gastro-intestinal tube, in which it has never been encountered. In yellow fever, as in typhoid fever, there takes place in the digestive tube an extraordinary multiplication of the coli bacillus, which is found there in a state of almost absolute purity. Upon the result of investigations it may be said the isolation of the specific microbe of yellow fever is possible in only 58 per cent. of the cases. The reasons for this are easy to understand. In the beginning of the disease the "bacillus icteroides" multiplies very little in the human organism, a very small quantity of its toxin being sufficient to provoke in man the worst type of the disease. In the second place, the toxin, whether by itself or indirectly through the profound lesions it causes, facilitates in an extraordinary manner every sort of secondary infection. The poison of the "bacillus icteroides" instead of being absorbed through the intestinal walls, is fabricated in the interior of the organs and in the blood. This bacillus is a little rod, with rounded extremities, united at best by pairs in cultures and in groups in the tissues, from two to four micromillimetres in length, and generally two or three times longer than it is broad. The best way to demonstrate, not only its presence, but also its special tendency to arrange itself in small groups, preferably in the blood-capillaries, consists in placing in the incubator, at 37° C. for twelve hours, a fragment of the liver taken from a fresh cadaver in order to favor the multiplication of the specific microbe. The yellow-fever bacillus grows sufficiently well in all the ordinary culture-media. In common gelatin it forms rounded colonies, transparent and granular. The granulation of the colony becomes more pronounced, appearing ordinarily as a nucleus, central or peripheral, completely opaque; in time the whole colony grows entirely opaque. It never liquefies gelatin.

The microbe of yellow fever is pathogenic for the greater number of the domestic animals.

Yellow fever progresses in cycles; at first the specific microbe is very scarce in the organs, and it is only at the end of the disease-cycle, whose duration may be established as between seven or eight

[38] Med. Rec., July 24, '97.

days, that the microbe multiplies resolutely and suddenly invades the entire organism, accompanied almost always by other microbes, probably of intestinal origin.

The "bacillus icteroides," once in the organism, not only determines a general intoxication, but also produces specific alterations, which have their seat of election, above all, in the kidneys, the digestive tube, and the liver.

The "black vomit" is due to the action of the gastric acid upon the extravasated blood in the stomach. The vomiting itself is directly provoked by the specific emetic action of the toxins of the "bacillus icteroides" circulating in the blood.

All the symptomatic phenomena, all the functional alterations, all the anatomical lesions of yellow fever are but the result of the action, eminently steatogenic, emetic, and hæmolytic, of the substance manufactured by the "bacillus icteroides."

The diffusion of the virus of yellow fever can take place as well by air as by water.

The "bacillus icteroides," whether by the effect of its specific poison or whether through the grave hepatic lesions which are its most immediate consequence, favors at a given moment the entrance into the organism of septic microbes, which not only end the disease much before the specific agent could do it, but are also prejudicial to the latter, invading at once its domains, suppressing its vegetative faculty and even its vitality.

It is on account of this that these phenomena of microbic antagonism between the yellow-fever bacillus and the micro-organisms of septic infections, instead of being useful to the patient, tend to hasten his death.

The probable cause of the mysterious longevity and resistance of the "bacillus icteroides" on board ships is that the common molds of the atmosphere constitute the great protectors of the "bacillus icteroides." In the holds of ships the moist heat and insufficient ventilation should be regarded as indispensable conditions for the growth of the molds, and therefore as indirectly favorable to the vitality of the "bacillus icteroides."

Surgeon-General Sternberg[39] says that it is evident from observations that the micro-organism described by Sanarelli is identical with the bacillus X which has been described by the author. Cultures containing the bacillus X produce vomiting, fatty degeneration, and hæmorrhagic enteritis, proving that its action is identical with that of Sanarelli.

E. Klebs[40] has conducted researches into the anatomical condition of the liver in yellow fever by means of a new method of staining. The sections, which must not be thicker than $^1/_{100}$ millimetre, are stained with a solution consisting of 7 parts of the author's parafuchsin-kresol solution mixed with 3 parts of a concentrated solution of methylene-blue in 5 per cent. borax solution and 3 parts of 1-per-cent. methylene-green. Decoloration is effected carefully by alcohol or by aniline-oil and xylol. The blue color of the section must not be eliminated. In specimens so stained the author finds, between the lines of the bluish tinged liver-cells, intensely-stained red masses, oftentimes forming stripes and masses larger than the liver-cells. The last are transformed and nearly destroyed by fatty degeneration in the median parts of the acini, and compressed by the red

[39] Med. and Surg. Reporter, Nov. 6, '97.
[40] Jour. Amer. Med. Assoc., Apr. 16, '98.

masses, whereas in the centre and peripheral parts only isolated red spots are disposed between the liver-cells. The red masses consist of round, oval-shaped, or irregular balls which will not conglutinate.

With higher powers, one remarks two constituents of these red masses, very deep stained, round, oval, or egg-shaped bodies, and slightly-stained masses, surrounding the first. Oftentimes in one red mass are included two or more of these bodies, somewhat larger than a human red blood-corpuscle, but oval-shaped and of quite homogeneous structure. It is not difficult to demonstrate that the greater, slightly-reddened masses are no other than very enlarged and, in their coloring qualities, deeply-changed leucocytes. Oftentimes they contain the blue-stained nucleus, somewhat altered, elongated, or otherwise deformed. Not all of these red bodies are included in cells, but are found free between the liver-cells, and here the largest forms, which measures more than 13 micromillimetres in length and 12 in breadth, mostly egg-shaped, with one broader and one smaller pole, are found. These contain, mostly, a greater or smaller number of vacuoles and brownish pigment. These larger bodies are not alone situated between, but also in the interior of the liver-cells. The sharply-defined form of these bodies, their different staining, their disposition in the interstitial tissue and in the liver-cells, their forming of vacuoles and pigment in the more advanced stages, certainly indicate them to be parasites of the class of protozoa. In the stomach and duodenum the same oval-shaped and red-staining bodies were always present. Certain blackberry-like forms, circular groups of small round bodies, not present in the liver, are found there also, and it is suggested that they represent sporulation. It is likely that the source of the disease is, first, a true gastro-duodenitis, remaining such in the milder, lingering, or endemic cases of some countries, but becoming epidemic with the migration of protozoa into the liver.

Pathology. — In the report of the Cuban Commission of Mississippi[41] the diagnostic findings of yellow fever post-mortem were as follow: The skin and sclerotics markedly icteric; usually early ecchymotic spots on the back of the neck, shoulders, and lumbar regions, thighs, calves of legs, and the ears. The abdomen is usually dry, sometimes a little fluid is present; the liver is contracted away from the ribs, of a box-wood color, bloodless, and friable. The gall-bladder is contracted, usually empty, but sometimes containing a thick, tarry fluid. The spleen is normal in size and color. The kidneys are normal, sometimes showing signs of recent acute inflammation. The stomach is usually anæmic, generally shows exfoliated spots where hæmorrhages have occurred, and frequently contains black vomit. The intestines generally contain a pasty-colored material like the stools, only not so black. The mucous membrane of the whole alimentary tract shows the most decided effects of the poison. The heart often shows traces of fatty degeneration.

According to R. D. Murray,[42] the primary lesion of yellow fever is in the duodenum and the symptoms of the disease follow generally in regular order. If the stools could be all and carefully examined some time a mass of white

---

[41] Jour. Mississippi State Med. Assoc., May, '98.

[42] "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98

mucus with a black or brownish centre will be found.

Prognosis. — Geddings[43] states that probably no case of yellow fever can occur without presenting albuminuria at some time, though that time be limited to a few hours, perhaps. The quantity present on first detection, and its increase or diminution from day to day, form, perhaps, a fairly good guide to prognosis. If it appears, increases gradually, and then begins to diminish, prognosis is good. If, on the contrary, it appears at first in large amount, persists or increases abruptly, trouble may be anticipated. The two gravest symptoms that can arise during the course of a case of yellow fever are undoubtedly black vomit and suppression of urine. Partial or complete suppression of urine is of the gravest accident that can happen in the course of yellow fever.

Treatment.—Sanarelli[44] says that good results from serum-antiamari are difficult to obtain if the treatment be applied when the disease is already advanced, when the "amarillic" poison largely accumulated in the organism has already induced those grave anatomical and functional changes which the serum cannot undo and which of themselves suffice to cause death. We must for the present, therefore, restrict our application of the serum exclusively to the first period of the malady. It can be injected into patients in the desired quantity up to the moment when all hope of success is not yet definitely abandoned. One should begin with a dose of 20 cubic centimetres, and, if appreciable improvement fail to set in, a second, a third, and even further doses may be injected, always being guided by the patient's resisting power, or his general condition, or the "period" of the malady, or the complications. The injections must be practiced subcutaneously in the region of the thighs or nates, but in urgent cases it is preferable to introduce the serum directly into the veins. These injections must be practiced under antiseptic safeguards of the most stringent kind.

E. K. Sprague[45] remarks that the apparent lack of success that has thus far attended the treatment of yellow fever with antiamarillic serum constitutes no argument against the bacillus as the cause of the disease, as there are yet many diseases in which the microbic cause is incontestably established, but for which we are still unable to procure a specific curative serum.

H. M. Folkes[46] says that a case of yellow fever can be treated in a room in a crowded hotel, and by taking the following sanitary precautions no other guest in the place need become infected: Over the windows should be placed a double thickness of mosquito-netting or some such material, kept constantly moist with a 1-to-500 bichloride solution. The patient's gown and bedclothing should be removed twice daily, immediately putting the same in a 1-to-500 bichloride solution, and a rubber sheet placed next to the mattress. The fewest possible things should be allowed in the room, and these are to be wiped with bichloride solution once daily. All dejecta, sputa, etc., from the patient are to be placed in the same solution, and all cups, towels, glasses, etc., are to be treated in like manner. The nurse should stay in the sick-room, or else,

---

[43] Annual Report Marine-Hosp. Service, '94; "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

[44] Lancet, Mar. 26, '98.

[45] "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

[46] Ga. Jour. Med. and Surg., July, '98.

when going out, she should take a bichloride bath, if possible, and put on sterilized clothing all over,—her shoes included,—unless she is simply leaving for a few minutes, in which case she should take the same precautions as the physician.

The physician should always put on a cotton gown wet with the same solution before going in the sick-room; this is to be removed when he comes out, and his hands and face should receive a formaldehyde or bichloride bath at once.

On recovery or death of the patient, if the room and its contents are thoroughly disinfected it will positively prevent a spread of the fever.

H. D. Geddings[47] believes that the treatment of yellow fever should be symptomatic and directed toward meeting plain and specific indications. For the initial stage, as well as for properly initiating a systematic treatment, administering a hot foot-bath containing mustard is excellent. As soon as the patient is made comfortable in bed, a sharp purge, preferably mercurial, should be given; calomel, 5 grains; compound powder jalap, 10 grains; administered in capsules found most efficient. Should this fail to move the bowels freely within six or eight hours it may be followed by a moderate dose of castor-oil, a Seidlitz powder, or a bottle of citrate of magnesia.

Closely following the first purgative should be administered one of the coal-tar febrifuges; phenacetin, 7 1/2 grains, or antipyrin or antifebrin, 10 grains, either of which may with advantage be combined with 1 1/2 to 2 1/2 grains of citrate of caffeine. Repeated doses of the antipyretic are not needed, nor, indeed, indicated. One, two, or, at most, three doses in the first twenty-four hours of the disease will accomplish all that is to be gained from this series of remedies.

The gastric irritability may be controlled by sinapisms to the epigastrium, abstention from fluids, and frequent ingestion of small pieces of ice. Should nausea or vomiting persist, the administration of cocaine hydrochlorate, in doses of 1/4 to 1/2 grain every hour or two, will often act almost magically. Small quantities of carbonated beverages, as Vichy, seltzer or apollinaris water, ginger-ale, or very dry champagne, administered ice cold, will often prove of service. Considerable relief is also derived from the application to the epigastrium of a liniment composed of olive-oil and menthol.

R. D. Murray[48] gives three or four compound cathartic pills at once and as soon as possible, a hot foot-bath, with or without mustard and salt. As soon as possible, if fever is above 102°, any coal-tar derivatives in 7 1/2-grain doses, with some bicarbonate of soda and caffeine to be given. After the bath and a good sweating, under blankets, for from four to six hours, the patient should be rubbed dry and covered with two blankets. The coal-tar derivative should be repeated every three to six hours if fever keeps above 102°. Orange-leaf tea, apollinaris water, lemon-grass tea, hot lemonade, ginger-ale, small sips of ice water, and other drinks may be given *ad libitum*. No spirits of any combination should be given. If the bowels are not freely and comfortably relieved within six hours, a small saline is administered. After thirty-six hours an enema should be given every day.

---

[47] Annual Report Marine-Hosp. Service, '94; "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

[48] "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

H. D. Geddings[49] states that when "black vomit" appears the treatment should be directed toward the general hæmorrhage diathesis. The most efficient remedy is found in the tincture of the perchloride of iron, 15 to 30 grains every hour or two, or, if the vomiting is frequent, after each act of emesis. Counter-irritation to the epigastrium, the administration of stimulants, preferably champagne or good brandy, administered in carbonated water and given cold, swallowing of ice, and administration of cocaine make up about the sum of remedial agents.

In suppression of urine, counter-irritation over the region of the kidneys with turpentine or mustard, dry cups, the application of hot-water bags, all should be tried. A *tisane* of watermelon-seed is efficacious alone or given in combination with spirit of nitrous ether.

Frequent washing out of the lower bowel with enemata of warm water and soap is very important. A well-oiled rectal tube should be passed as far up into the bowel as possible, and with a fountain-syringe elevated not more than a foot or two 2 or 3 pints of warm, soapy water should be slowly forced into the bowel. In malarial regions it is a good practice to administer 30 to 45 grains of quinine or cinchonidia in the first twenty-four hours, exhibiting the drug per rectum if the stomach is irritable.

As regards diet, Geddings thinks that the yellow-fever patient should be well nourished, but the most scrupulous care should be exercised in the selection and administration of food. "A little and that often" should be the rule. For the first few days milk with lime-water given cold, then animal broths, concentrated, but free from fat, should be the regimen. The fever being reduced, soft-boiled eggs, milk-toast, and small bits of the white meat of chicken and tenderest steak may be permitted. Probably at least ten days or two weeks should elapse before the convalescent, by the easiest stages, should be permitted to resume ordinary diet.

Prophylaxis.—H. R. Carter[50] states that as far as the selection of a living place is concerned, non-infected location, as far from any known focus of infection as possible, or residence portion of the town liable to be or become such a focus, should be preferred. It should, if sufficient distance be unattainable, be to the windward (prevailing wind) of such portion of the town or separated from it by trees, etc., and be located on high, well-drained ground, as much exposed to wind as possible, and not so shady as to be damp. The place chosen for residence should be kept dry by means of ditches. It should be kept very clean, and free from vegetable as well as animal matter, decaying leaves and wood, especially sawdust. The houses should be preferably built of wood with free circulation of air under them, light and wind penetrating everywhere. Articles stowed away and handled in the non-resident portion (business district) of the town are little liable to be exposed to infection. The capability of an article to retain infection depends upon the nature of its exposed surfaces. If these be hard, smooth, and non-absorbent, the article will be little likely to convey infection. Household goods are most exposed to infection and should be burned.

One should not enter houses unneces-

[49] Annual Report Marine-Hosp. Service, '94; "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

[50] "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

sarily; should not go out of uninfected quarters at night; should not receive or come in contact with any fabrics or household goods about the exposure of which to infection there is doubt.

There are certain personal factors affecting susceptibility which we cannot influence, and yet of which we may avail ourselves advantageously, as

(*a*) The lessened susceptibility of the negro race.

(*b*) The lessened susceptibility of those living for years (better for generations) under the conditions which obtain in the tropics.

Thin, spare, vigorous men are less liable to develop the disease, and bear it well.

Most potent auxiliaries to an infection are,

1. A sudden chilling of the surface, especially if wet with perspiration.

2. Excessive exposure to the direct rays of the sun.

3. Excessive physical fatigue.

4. Anxiety and mental distress generally, especially fear of the disease.

The constipation nearly always associated with the advent of the fever probably has an etiological influence.

A meat diet is claimed to increase the susceptibility to the disease, as well as to make it more severe. The same is true of alcoholics. The free use of water and a diet of juicy fruits and fresh vegetables, should put a man in a better condition to go through the disease and probably lessen his chance of developing it.

To avoid chilling the surface, flannel should be worn.

When the disease has invaded a town, the author argues that if there be but few foci, and these be known, the chances of suppressing the fever are good. If, in addition, all who have been exposed to infection are known and can be properly provided for, the chances of success in arresting the disease are greatly increased.

If the fever be confined to one section of the town, even if pretty general therein, it may be possible to so isolate that part as to preserve the remainder. The patient should, if possible, be moved to an isolated place or a well-appointed hospital. Removal during the first forty-eight or sixty hours prior to the "stage of calm" is not specially injurious. After that time it is to be deprecated. If the patient is moved, all possible precautions to prevent infection of his new quarters must be taken. Cleanliness, dryness, good ventilation, and sunshine are all important. No fabrics, carpets, hangings, etc., not absolutely necessary should be allowed in the room. The clothing, bedding, etc., which go with him if moved must be immediately disinfected. A rubber sheet to protect the mattress must be placed on the bed. The bed-linen and shirt must be changed daily, oftener if soiled; and the rubber sheet be changed when necessary. All fabrics used about the patient should at once be put into an antiseptic solution. This should be done in the patient's room and the floor should be wiped up daily with a similar solution. All excreta should be disinfected or destroyed. The physician should wear linen or other smooth clothing, or change it if he goes out. These precautions are recommended only when there are very few patients and every real risk, however slight, is to be avoided. Until premises are released from observation they must be under guard. The premises adjacent to those of the patient which from propinquity, communication, or direction of wind can reason-

ably be judged to have received infection are also to be disinfected.

The inmates of the house of the patient (unless immune to yellow fever) should be removed from the house, all clothing, etc., disinfected and kept under observation—"quarantined," in a place free from infection and so situated that if any of them sickens he may not establish a focus of infection dangerous to the community.

It is to be noted how rarely people taken from infected premises and placed in camps, or under the conditions of camp-life, develop fever.

When the fever cannot be suppressed, the providing of a legitimate means of egress, if safe, is an added safeguard, and an important one, against the infection of clean territory.

Stress should be laid on early depopulation. Classes who may leave are those who have been certainly not exposed to infection. The others may go (1) directly to points incapable of receiving the infection of yellow fever, generally northern points—high altitudes—to remain there indefinitely, or for a time to cover their incubation; (2) to points capable of receiving such infection but through a camp of detention.

There seems no reason why baggage going north should be disinfected. Indeed, there are good sanitary reasons for not doing so. Every obstruction, however slight, put in the way of people leaving an infected town to some extent prevents their leaving and to a disproportionate extent induces them to put off leaving. The sooner they depart the better.

W. F. Brunner[51] recommends that businessmen leave the city every afternoon before sunset and spend the night at some of the small towns near by, returning next morning after sunrise to pursue their different callings. In a seaport or in a town on a river persons should be prohibited from sleeping near the wharf or river-front.

Care should be taken to sterilize all clothing and material in an infected room and to thoroughly disinfect the room and contents after recovery or death of the patient. One of the principal precautions to be taken is in the matter of clothing. Flannel, light in texture and color, is the best material.

Wasdin[52] claims that the observance of the rules for personal cleanliness is imperative. All undue fatigue should be avoided, and the question of suitable clothing carefully considered. The greatest regularity in taking meals should be observed and the use of boiled water is advisable. Alcoholic beverages to one unused to them are harmful; to those habituated, their use in moderation seems necessary. The use of internal medication to ward off this disease is useless. The hygiene of environment is the more important. One should select a dry, well-drained abode, to which sunlight has free access, and which can be thoroughly ventilated. One should live such a way that the precautions suggested above may be intelligently exercised, and he will have done all that a sound mind within a sound body can do.

Seaton Norman[53] thinks that the advisability of depopulation depends upon the size of the town or village, the density of the population, and the number exposed.

J. H. White[54] recommends the following method of disinfection:—

---

[51] "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

[52] *Ibid.*

[53] *Ibid.*

[54] *Ibid.*

1. Apartments or dwellings infected with yellow fever to be disinfected by one or more of the following methods:—

(*a*) By a thorough washing of all surfaces of apartments with an efficient germicidal solution.

(*b*) By sulphur dioxide for twenty-four hours' exposure, 4 pounds of sulphur for each 1000 cubic feet, plus due allowance made for waste.

(*c*) By formaldehyde-gas in not less than a 4-per-cent. per-volume strength, and not less than six hours' exposure.

[One litre of 40-per-cent. solution of formaldehyde-gas will evolve about 1.425 litres (50.1 cubic feet) of gas at 20° C. (68° F.).]

2. Grounds, out-buildings, etc., deemed to be infected, to be disinfected with a strong solution of crude carbolic acid (carbolic acid, crude, 2 parts; sulphuric acid, 1 part; water, 25 parts) or an acid solution of bichloride of mercury (1 to 500); disinfection of ground, preferably by fire.

3. Bedding, wearing-apparel, carpets, upholstered furniture, and the like to be disinfected by one or more of the following methods:—

(*a*) By steam at a temperature of 212° to 216° F.; thirty minutes' exposure.

(*b*) By boiling, all parts of the articles to be surmerged.

(*c*) By saturation in an efficient germicidal solution.

(*d*) By thoroughly wetting the surfaces of articles with a 40-per-cent. aqueous solution of formaldehyde, and placing them in a closed space for not less than twelve hours.

(*e*) Where surface-disinfection is required, formaldehyde-gas of not less than a 4-per-cent. per-volume strength and not less than six hours' exposure, or by sulphur dioxide for not less than twenty-four hours.

4. The dejecta from cases of yellow fever to be disinfected by an efficient germicidal solution.

Mails to be disinfected by one of the following methods:—

(*a*) By formaldehyde-gas.

(*b*) By sulphur dioxide.

(*c*) By steam.

(Newspapers must be made up in such packages as shall be penetrable to the disinfectant used.)

Articles injured by steam, such as rubber, leather, and containers, to which disinfection by steam is inapplicable, to be disinfected:—

(*a*) By thoroughly wetting all surfaces with an efficient germicidal solution, the articles being allowed to dry.

(*b*) By exposure to sulphur dioxide.

(*c*) By exposure to formaldehyde-gas.

The application of gaseous disinfection to these articles should be made in a closed space, air-tight, or as nearly so as possible.

The following are considered efficient germicides:—

1. Bichloride-of-mercury acid, 1 to 1000.

2. Carbolic acid, pure, 5-per-cent. solution.

3. Trikresol, 2-per-cent. solution.

4. Solution of formaldehyde, 1 to 500 (which is 1 part of a 40-per-cent. solution of formaldehyde to 199 parts of water).

5. Solutions of hypochlorite of calcium (chloride of lime).

Post-epidemic Disinfection. — In the work of post-epidemic disinfection, Surgeon-General Walter Wyman[55] instructs

[55] "Yellow Fever," etc., by Officers U. S. Marine-Hosp. Service, '98.

his officers to carry out the following measures:—

(*a*) The medical officer in command shall make, or cause to be made, house-to-house inspection of all infected localities, and obtain complete lists (giving number and street when practicable) of all buildings in which yellow fever occurred or where suspicious disease existed during the past summer and fall.

(*b*) This inspection should be made by competent sanitary officers, under direction of the medical officer in command, and every part of the premises must be carefully inspected.

(*c*) The inspection includes the inspection of all streets, alleys, and by-ways.

(*d*) The inspection should include an examination into the water-supply.

A complete list to be made of all persons exposed to, or who may have contracted, the disease, with the result in each case.

It is recommended that after the inspection above provided for has been made the medical officer shall designate a competent sanitary officer to perform the thorough disinfection and cleansing of all houses and premises which he may have decided require the same, said disinfection to begin as soon as practicable after the inspection referred to has been made in any locality.

It is recommended that the removal of all refuse, garbage, and other deleterious matter be included in the work of disinfection.

It is recommended that the inspectors inform all parties whose houses are visited that no injury to their houses or contents will result from the disinfection contemplated, and that it is absolutely necessary for the protection of themselves and the community in which they live.

The use of formaldehyde-generators or lamps is recommended for the disinfection of houses and their contents.

Both before and after disinfection the houses should be opened and thoroughly aired—"chilled," if the weather is favorable—and later on all the rooms, closets, etc., should be exposed to several hours' airing during freezing weather, and repeated at intervals during the winter.

Stables, pens, etc., can be disinfected by the use of bichloride-of-mercury solution, 1 to 500, or carbolic-acid solution, 50 parts to 1000 parts (applied by means of a spray), if all exposed surfaces are completely saturated. Privies may be disinfected by chloride of lime or strong solution of carbolic acid.

Cyclopædia of Current Literature.

ABDOMINAL SECTION.

Intestinal paralysis or obstruction is more often the cause of fatal sepsis, either wholly or in part, than *vice versâ*, in many cases the septic matter finding its way through the stretched intestinal walls. Exposure of the peritoneum, handling of the viscera, production of raw surfaces, and leaving dead matter (bloody oozing and *débris*) are followed by intestinal adhesions in from 12 to 36 hours, and these adhesions produce more or less intestinal paralysis and sometimes obstruction. On the day before a peritoneal section, the patient should be purged sufficiently to reduce the gaseous distension of the intestinal coils (that they may be kept out of the way during

the operation), obtaining as many as six or eight large stools, while patients of relaxed fibre should receive full doses of strychnine from the time they come under observation. Two hours before the operation 2 teaspoonfuls of the fluid extract of cascara are given. Immediately on awaking from the anæsthetic the patient receives a drachm of magnesium sulphate every hour; at the end of six hours a stimulating enema is administered and repeated till gas passes between enemas; then the saline is discontinued. In simple operations where undue haste is not necessary the salines and enemas are given a little later. The author presents as presumptive proof of the value of this method a record of 105 consecutive recoveries after peritoneal sections since its adoption. H. T. Byford (Amer. Jour. of Obstet., July 1, '98).

ADENOID VEGETATIONS AND DEAF-MUTISM.

A subject of absorbing interest is the relation that apparently exists between deaf-mutism and the presence of adenoids. Thus, one observer found adenoids in 59 per cent. of the boys and girls who were deaf-mutes. It is probable that, if sufficient attention were given to adenoids in early infancy, a material diminution in the number of these unfortunates would result. E. Fayette Smith (Phila. Med. Jour., July 9, '98).

ADENOIDS, POST-NASAL.

Diagnosis. — In nine-tenths of the cases of mouth-breathing children the lesion will be found to be either enlarged faucial tonsils or post-nasal adenoids, or a combination of both. These conditions must be excluded before the case is put down as nasal catarrh. The symptoms in these cases are always pretty much alike—usually anæmic and ill-nourished, the child breathes partially or wholly through the mouth, catches cold at all times, suffers from impaired hearing, oftentimes earache; is croupy, with more or less bronchial catarrh through the winter. Such general symptoms as these always indicate more than simple nasal catarrh. The diagnosis is very easily made if one looks into the anterior part of the nose. Although there may be accumulated nasal secretions, no deviation of the septum and no hypertrophy sufficient to occlude the nostrils will be found. Enlargement of the middle turbinated is very rarely a factor in children; so at once one is brought back to the vault of the pharynx as the source of trouble. From clinical experience it can be stated that there is more or less enlargement of the third tonsil in all these cases. Great enlargement of the faucil tonsils occurs more rarely than in former years, but moderate enlargement of the post-nasal tissue is just as frequent.

Diagnosis of post-nasal adenoids and faucial tonsils can frequently be made with Munger curette, which is much more easily introduced than the finger, and anybody who is accustomed to its use can quickly determine whether an enlarged tonsil exists. If the curette is introduced into an adult pharynx the surface will feel as smooth as glass, and it is not possible to sink the point of the curette into the tissues. It is difficult even to scarify a normal post-nasal space, because the surface is so hard and slippery. It is quite different in a vault filled with enlarged adenoids. When the point of the curette reaches this tonsillar enlargement, it will be felt to be soft and spongy, the point of the curette is easily pushed into it, and resistance is felt when one attempts to push the

curette downward. This makes the diagnosis certain. Rice (The Canada Lancet, Aug., '98).

ALGINATE OF IRON.

Alginic acid is a new organic acid obtained from algæ. It is a nitrogenous body, and as first isolated it forms a light-brown, gelatinous substance. Alginic acid combines with almost all the bases to form compounds, soluble and insoluble. In addition to these compounds, alginic acid combines with many alkaloids, forming soluble films which may have a very extensive and useful application in the field of medicine. All of the alginate salts are little acted on by pepsin, and therefore pass through the stomach almost unaltered—a point of great practical importance in the therapeutic application of some of them.

Alginate of iron is a tasteless, brown, insoluble powder. Compared with the albuminous ferric compounds, the proportion of iron is large, viz.: 10.92 per cent. The alginate of iron is best administered in a fine powder in doses of from 10 to 15 grains, given thrice daily. Unlike the majority of iron preparations, the alginate has no astringent effect; thus the alginate of iron is a compound containing an unusually large percentage of the element in a very assimilable and active form. Perhaps the fact that it is little acted on by gastric digestion accounts for the tolerance which the stomach exhibits toward it. Indeed, in the majority of instances it proves a gastric sedative, and although given in large doses, instead of inducing or increasing, it diminishes, constipation. William Maclennan (Glasgow Med. Jour., July, '98).

ANIMAL EXTRACTS.

A possible danger to health may be incurred in the use of thyroid and thymus glands, that may be sold by butchers under the name of "sweetbreads." The writer has made some investigation of the subject and finds that there is a confusion of terms, intentional or otherwise, in the minds of the sellers of meat. He says: "In talking to a butcher I was surprised to hear him say that there were three sweetbreads in an animal. I asked him where they were situated, and he told me at the root of the neck, in the cavity of the chest, and in the belly of the animal. I questioned him more closely and discovered that his three sweetbreads corresponded respectively to (1) the thyroid gland; (2) the thymus gland; and (3) the pancreas. To make quite sure that no mistake has been made, I watched him, a day or two after, kill and cut up a bullock. The thyroid gland in this animal is situated low down at the root of the neck, over the trachea. The thymus (which he told me was bigger in the calf than in the bullock) is placed in a somewhat similar position to where it is in man; while the pancreas (the most important organ) he regarded as the least significant, and told me it was 'given in with the liver.' He told me, moreover, that if he were asked for calf's sweetbread he would always give (what we call) the thyroid and thymus glands. It seems only right for every physician to be on his guard when ordering 'sweetbreads' for his patients that the pancreas be provided, and not these other glands. An undercooked calf's thyroid gland being repeatedly given in the place of a real 'sweetbread' might produce untold mischief in a patient, as well as perplex the mind of the prescribing practitioner in a peculiar and undeserved manner." Parry (Canada Lancet, July, '98).

Whereas some patients can take large doses of thyroid with impunity, others

are injuriously affected by small amounts, and one should begin with a minimum dose,—say 3 grains daily,—and increase it very slowly, watching the heart and kidneys carefully. In cases of bleeding fibroids, thyroid has an influence toward checking the loss of blood, and in certain cases it is followed by diminution in size of the growth. Its use in appropriate doses is followed by improvement in the general health, probably due to the cessation of loss of blood. Nine to 15 grains is the maximum dose, 1 to 5 grains three times a day. The average duration of treatment, nine weeks. W. E. Moseley (Med. News, July, 9, '98).

BLENNORRHAGIC ARTHRITIS.

Treatment.—It is advisable in all acute inflammations of the joints to examine the urethra. In 90 per cent. of the cases urethritis will be found. The cases may be divided into four groups: First, where effusion alone occurs; second, where there is formation of fibrin and thickening of the capsule; third, periarticular plegmon with impairment of the action of the tendons and elasticity of the ligaments; fourth, where ankylosis occurs very early. The puncture of the joints and the injection of a solution of carbolic advised. If there is a periarticular affection, the joint should be opened and washed out. König (Sammlung. klin. Vortrage, No. 170, '96; Boston Med. and Surg. Jour., July 7, '98).

BOILS, CARBUNCLES, AND FELONS.

Treatment.—The occurrence of suppurative processes should always be regarded as evidence of faulty metabolism, and search should be made to discover and rectify what is wrong. Patients with boils, carbuncles, and felons are never in perfect health, although it is extremely difficult at times to discover the cause on which the trouble depends. Iron is most commonly needed, but quite as often there will be digestive and assimilative difficulties. In the local treatment of the disease, the objects aimed at are, first, the protection of the inflamed area; second, exclusion of the air; third, a slight antiseptic action. To obtain this end the inflamed surface is covered with a thick layer of absorbent cotton, on the center of which is smeared an ointment of carbolic, ergot, zinc oxide and powdered amyl, made up with an unguent of rose. When pus is present, the skin is left to part spontaneously. The ointment is applied constantly until the carbuncle heals.

In felons, the diachylon, or litharge, ointment, prepared according to the formula of Hebra, is employed; the pain grows less, and the patient's general condition rapidly improves, and the lesion in the finger terminates in a short time in resolution. L. Duncan Bulkley (Brit. Med. Jour., Oct. 2, '97).

BRIGHT'S DISEASE.

Treatment.—There is a good deal of mischief done by iron in Bright's disease. Basham's mixture in Bright's disease was never suggested for any directly curative purpose, but simply as a remedy for the anæmia which is so conspicuous a symptom in many cases, and for this purpose it still is and always will be useful. But not every case of Bright's disease is anæmic, and as iron has no specific curative effect it is clearly not indicated in non-anæmic cases. Nay, more, it is often harmful. It may be laid down as a rule to which there is almost no exception that iron is not indicated, and should not be prescribed in cases of acute Bright's disease. On the

other hand, after the acute symptoms have passed away and convalescence sets in iron is often very useful.

A second class of cases in which iron is contra-indicated is chronic interstitial nephritis, in which it is more promptly and dangerously harmful than in any other form known of Bright's disease.

The form of Bright's disease in which iron is best borne is chronic parenchymatous nephritis. And as this is apt to be associated with more or less anæmia it becomes a most valuable remedy in overcoming this symptom. Even here the doses given are usually needlessly large. The author's practice is to determine the proper dose by an examination of the stools, and if these are decidedly blackened, too much is being given. On the other hand, a slight coloration may be permitted. Basham's mixture is no more diuretic than the bulk of water which constitutes its menstruum. James Tyson (Jour. Amer. Med. Assoc., July 23, '98).

CHLOROSIS.

Treatment.—One of the most promising recent advances in the treatment of obstinate cases of chlorosis is diaphoresis. Better than the dry, hot-air baths for this condition are the hot-water baths. A characteristic symptom in most chlorotics is pain between the shoulder-blades. The erector spinæ muscles suffer from the act of keeping the patient erect. The reflex action of the hot baths causes more blood to be brought to the muscles and relieves this muscular discomfort. A bath at 105° F. with a wet towel wrapped around the head is given for one-half to three-fourths of an hour. This causes plentiful perspiration during the bath. It is followed by a cold douche to prevent further perspiration, which would be exhausting. A bath is given three times a week for three to four weeks. Rosin (Med. News, May 14, '98).

COLOTOMY AND COLOSTOMY.

Colostomy consists in bringing the descending colon up to the anterior abdominal wall, to which it is stitched, the opening into the lumen being made at once or after an interval, according to circumstances.

The great disadvantage of this operation is that it does not entirely prevent the entry of fæces into the distal part of the bowel, where they tend to set up inflammatory troubles. In colotomy, the gut is cut completely across, the proximal portion brought out of the wound, and the distal closed by sutres and returned to the abdomen. This method is not entirely satisfactory, as the distal end tends to become distended by the accumulation of its own secretion, which may eventually lead to ulceration. König and Sonnenburg leave the upper extremity of this portion open and attach the artificial anus to the abdominal wall below, whereby the rectum can, if desired, be irrigated from above. Another means of preventing fæces from getting into the rectum is by the formation of a spur, but the disadvantage of this method and colotomy is that they leave a long and freely movable colon and mesocolon. The best method consists in the ordinary operation of colostomy performed at one sitting, but preceded by partial occlusion of the distal portion of the bowel. A ligature is tied around this, occluding it to about one-half its diameter, and the bulging serous surfaces on either side are sewn together with interrupted stitches. An artificial constriction is thus produced, which prevents the accumulation of fæces in the rectum. In attaching the

gut to the belly-wall, first sew the serous and muscular coats of the intestine to the parietal peritoneum, and then pass the ordinary sutures through both bowel and abdominal wall. If, however, this will lead to considerable tension, attach the intestine to the fascia of the external oblique, leaving the skin free, but shutting off the muscular planes from the risk of infection. Mosetig-Moorhof (Wiener Med. Presse, No. 3, '98).

CONDURANGO.

Condurango-bark, which has been extolled for the treatment of various gastric affections, and particularly in gastric cancer, exercises a peculiarly-calmative effect on gastric pains in the dose of 7 1/2 to 12 grains powdered condurango daily, in pill form. It has also been observed that the pains and vomiting of round gastric ulcer, which had resisted cocaine, rapidly ceased on administering 2 1/4 grains, four times a day, in pill form. Lemoine (Sem. Méd., vol. xviii, p. 110).

CONVULSIONS, INFANTILE.

Etiology.—Alcoholism on the part of the nurse is a competent cause of convulsions in a breast-fed child; such convulsions are preceded by nervous irritability, general hyperæsthesia, but without gastro-intestinal derangement, elevation of temperature, or pulmonary complication. They are apt to appear in extremely well-nourished children. As regards the fits, they show marked tendency to increase in number and severity. In some instances there may be anuria. Under such circumstances it is necessary to inquire carefully into the habits of the nurse, and to make a change as early as possible. Meunier (Jour. de Méd., April 25, '98).

DYSENTERY.

Acute tropical dysentery treated with very satisfactory results by the administration of ammonium chloride. The salt was given in drachm-doses every four hours, and the patient placed on milk-and-arrowroot diet. In the majority of cases blood was absent from the stools on the third or fourth day. Ipecac is useless in the treatment of tropical dysentery, and opium should never be given in the early stages; its beneficial effects are only seen in the last stages when combined with cannabis Indica, and when other drugs have failed. J. W. S. Attygalle (Brit. Med. Jour., No. 1949, p. 1197, '98).

ENTEROCLYSMS.

All the necessary apparatus is a rubber rectal tube and a fountain-syringe, or a funnel. A rectal tube of soft rubber, having rather thick walls, and measuring two feet in length by three-eighths inch in diameter, is preferred. The surface of the tube is made very smooth, and the tip is rounded and slightly tapering, and has a terminal opening. The reservoir is usually placed at a height of four or five feet, and the tube is introduced a distance of eight inches. A child is usually given an enteroclysm of 1 pint, an adolescent one of 2 pints, and an adult one of 3 or 4 pints. Ten minutes are usually occupied in administering the enteroclysm, and the fluid should be retained for a like period. The occurrence of colic is an indication of the presence of gas, of the use of too large a quantity of fluid, or of its too rapid introduction. Experiments on the bodies of four children to determine how far up the intestinal tract these injections go showed that there was no difficulty in causing the fluid to pass through the ileo-cæcal valve into the

small intestine, and even out through the mouth and nose.

The following are the conditions in which enteroclysms are chiefly useful: Obstinate and long-standing constipation; autointoxications due to decomposition of the intestinal contents; many forms of irregular gout; cases of chlorosis in which fæcal anæmia is a prominent element; progressive pernicious anæmia occurring without obvious cause; diabetic and uramic conditions; cholera; typhoid fever in the early stages; pseudomembranous colitis, and insolation. Judson Daland (Phila. Med. Jour., July 9, '98).

EXOPHTHALMIC GOITRE.

Treatment. — Good results obtained from the use of the constant galvanic current in the treatment of Basedow's disease. The exophthalmus diminished or disappeared, the general condition improved and there was diminution of the disordered cardiac innervation, and in volume of the hypertrophied thyroid body. Bertran (Arch. de Ginecol., Obs. y Ped., No. 5, '98).

FALLOPIAN TUBES, DISEASES OF.

Diagnosis.—Pyosalpinx is to be suspected if dilatation of the tube follows gonorrhœal infection and if the tumor is very closely adherent. Hydrosalpinx and pyosalpinx are usually double, while hæmatosalpinx is unilateral. If the tubal mass is of large size and there is no extensive adhesion, there is probably a hydrosalpinx; pressure is less painful than in the case of pyosalpinx. While the tumor is still movable it may be mistaken for a small ovarian cyst, and especially for an intraligamentous cyst. The latter, however, is more decidedly lateral, and is not usually separated from the uterus by the space corresponding to the pedicle of the tubal cyst. The differential diagnosis from tubal pregnancy in the first four months is almost impossible to make with certainty.

In the majority of cases where these fætal cysts have been removed, the operation has been undertaken for supposed salpingitis. Enlargement of the uterus and expulsion of a decidual membrane are the only diagnostic sign and symptoms. An inexperienced examiner is very apt to mistake a large serous of bloody cyst for uterine fibroma, and it is, indeed, often very difficult at first to distinguish the one from the other. But the uterine sound, carefully used, will show a great increase in the uterine cavity, when there is a fibroid, and a normal cavity in the case of the tubal affection.

The differential diagnosis between a large cyst of the tube and a fibrocystic tumor of the uterus is in some cases almost impossible; yet the increased size of the uterine cavity, as demonstrated by the use of the sound, will determine the question.

Special attention is directed to some points that are not dwelt on by authorities. Case of woman who suffered with pain in her pelvis. On examination uterus found retroverted and a mass on each side. It seemed as if the tubes were distended, so an operation was advised for the removal of the tubes. When the abdomen was opened instead of the tubes being distended they were normal in size. Both ovaries, however, gave indication of chronic ovaritis, and the supposed tubal affection proved to be a portion of the intestine occupying the sac of Douglas and containing two fæcal masses, occupying the position where distended tubes are usually found, overlapped by the uterus. Both ovaries were

removed, the adhesions separated, and the uterus returned to its normal position; but during her convalescence the patient was treated for ptosis, or prolapsus, of the bowel. William H. Skene (Brooklyn Med. Jour., Aug., '98).

Prolapsed intestine and varicose veins have led the writer astray on several occasions. They no longer do so, for such patients are examined in the exaggerated Trendelenburg or exaggerated knee-chest position, when the tumor disappears. Placing the patient in either of these positions, a little pressure will raise the intestine sufficiently far up to know that it is not a tube, or it will sometimes slip out of the pelvis of its own accord. If there are many adhesions this will not take place, but the contents of the intestine can be pressed up out of the pelvis, so that the distended canal collapses and shows that it is not a tube. Placing the patient in this knee-chest position or the exaggerated Trendelenburg position, any present disappear, and the differential diagnosis is made in that way. A. J. C. Skene (Brooklyn Med. Jour., Aug., '98).

GASTRO-ENTERITIS.

Treatment. — For infants suffering from gastro-enteritis due to milk infection, Dr. Wells advises absolute starvation for twelve hours,—no food of any kind being allowed during this period; cold boiled water, however, should be freely given, to which, if the child is very weak, from 10 to 15 drops of good whisky or brandy may be added. Copious irrigations of the lower bowel with boiled water containing a drachm of salt to the pint, are employed, one quart being used for each irrigation; these are best given through a catheter or small rectal tube. If there is much vomiting the stomach should be washed out with sterilized boric-acid solution. It is well to give a small quantity of strychnine ($^1/_{120}$ grain) or other cardiac stimulant, hypodermically, just before lavage is performed. At the expiration of twelve hours, if the vomiting has ceased, and the stools look more natural, from $^1/_2$ drachm to a drachm of expressed beef-juice or liquid predigested food may be given every two hours. After that, if the infant has been bottle-fed, it is placed upon a modified milk diet. Breast-fed babies should be taken from the breast, and treated in all respects like those upon an artificial diet. The mother must be cautioned to bathe freely and before and after each nursing to wash the breasts and nipples with a strong solution of boric acid and water. Too much stress cannot be placed upon this injunction, since the mother's milk cannot fail to become infected the moment it reaches an unclean nipple. Charlotte C. West (Phila. Polyclinic, Aug. 6, '98).

GENU VALGUM.

The variety observed in the explanations given by different surgeons as to the origin of "knock-knee" is very puzzling to students, and moreover less misleading to practitioners. Experience will lead to recognition of various factors, which may be classified as follows: Changes in the soft parts,—for example, ligaments,—and softened and thickened epiphyseal cartilages; deformity in the lower end of the femur; deformity in the upper end of the tibia. These three factors are usually all present, but in some cases the deformity is the expression of only one of them; for instance, in a certain number of fairly-pronounced cases it was found that by supporting the internal condyle of the femur with one hand while the other pressed the

foot inwards toward the middle line of the body, the deformity could be made to disappear completely. In such cases the change of form is due to stretching of ligaments on the inner aspect of the joints, and to rachitic changes in the softened and thickened epiphyseal cartilages. Such cases never demand operative measures. The constant mention of operation in connection with geno valgum has a bad educational effect. Students come to regard operative treatment as a routine measure instead of one that is only exceptionally called for as a result of the neglect of sufficiently-early instrumental treatment. Clarke (Brit. Med. Jour., Apr. 30, '98).

GERMAN MEASLES.

Diagnosis.—The characteristic enanthem observed in German measles is a macular, distinctly rose-red eruption upon the velum of the palate, the uvula, extending to, but not on to, the hard palate. The spots are arranged irregularly, not crescentically; are the size of large pin-heads; and are very little elevated above the level of the mucous membrane. The enanthem is very short lived, fading away within the first twenty-four hours. The claim that this enanthem is distinctive can be defended by comparison with the enanthem of those two diseases with which rubella is confounded. In scarlatina the enanthem appears from twelve to twenty-four hours before the eruption, on the pillars of the fauces in the form of the characteristic puncta, then rapidly spreads over the mouth in the form of a scarlet-red coalescing eruption, finally ending in desquamation, producing the strawberry-tongue, and lasting well into the second week of the disease. In measles the enanthem begins upon the soft palate from thirty-six to forty-eight hours before the exanthem in the form of purplish or bluish papules, arranged crescentically, and extends over the cheeks, accompanied by the blue tongue. It is at its maximum with the beginning of the eruption, and may take as long as three or four days to disappear. Forchheimer (Pediatrics, July 1, '98).

GONORRHŒA.

Etiology.—Gonorrhœa may be innocently acquired. Experiments with pure culture of the gonococcus obtained from a gleety discharge of two years' standing gave the following results:—

1. Attempted reinfection of the original urethra with this culture was always a failure.

2. The culture, when transplanted to a coccus-free urethra, produced typical acute gonorrhœa.

3. Infection from this back again to the original urethra gave a fresh gonorrhœa, which, after a typical acute course of five or six weeks, again subsided to a chronic gleet. This most interesting experiment demonstrates that by passing an attenuated gonococcus through another subject—that is, through a fresh culture-ground—it becomes again virulent to a urethra which was immune to it before. This explains how an apparently-healthy man, if he have the gonococcus lurking anywhere in his urethral tract, may infect his hitherto-uninfected wife, and how he may be again infected from her. H. Brooks Wells (New York Polyclinic, May 15, '98).

Treatment.—In performing irrigation, it is well to get the patient used to having his anterior urethra thoroughly irrigated. When he finds he is not hurt, he will instinctively relax, and often without his knowledge some of the fluid finds its way into the bladder; then he

himself soon learns to relax the compressor muscle by trying to perform the act of urination. In this way the fluid flows into the bladder without any violence. The patient should sit on the edge of a chair, obtaining a comfortable position, sometimes by leaning back and relaxing himself completely. Then he holds a pus-basin in position with the left hand, while the physician sits on his right. In this way the bladder can often be filled rapidly, even when the height of the reservoir is but 2 $^1/_2$ feet. And it is important to avoid using any force whatever.

In some very few cases, after thoroughly cleansing the anterior urethra, the patient is placed on his back, and with a large hand-syringe, holding about 3 ounces, the bladder is filled from the meatus without the use of a catheter, after the method suggested by Guiard, of Paris. The strength of the solution used seldom exceeds 1 to 2000 for the anterior, and 1 to 4000 for the posterior, urethra; this is the best method to pursue in the majority of cases.

In addition to this treatment, argonin in 10-per-cent. solution may be used in the anterior urethra alone, injecting it by an ordinary urethral syringe and holding it in the urethra for a space of five to ten minutes.

In private work this should be done twice a day for three or four days according to the case, after that once a day; and in numerous cases the case comes to a complete close within a week, and incapable of returning except by a reinfection. The most brilliant cases are those seen early; but it may be applied at any stage. If it fails, it is because of infection of some para-urethral follicle which has been overlooked or some diverticulum within the urethra. In these early cases the disease seldom reaches the posterior urethra, and often it is never necessary to irrigate the posterior urethra in a given case at all.

The course of the disease should be followed by microscopical examinations, the treatment carried on several days after the gonococci have disappeared, and the patient kept under observation for awhile. The only drugs given by the mouth are for the general condition or to keep the bowels open. Exercise, so far as possible, is interdicted. Alcoholics are absolutely forbidden during treatment, but attention is seldom paid to diet. The success of the treatment depends upon careful attention to details; so that it is never advocated giving the solutions to the patient to use himself. G. K. Swinburne (Jour. Cutaneous and Genito-Urin. Dis., July, '98).

HYDROCEPHALUS, ACQUIRED.

Etiology.—It is probable that the most frequent causes of obstruction in cases of chronic hydrocephalus are simple fibrous closure of the foramen of Magendie, adhesion of the surfaces of the tonsils of the cerebellum to each other and to the margin of the fourth ventricle, and the presence of cysts between the arachnoid and pia at the postero-inferior aspect of the cerebellum.

Treatment.—A case of acquired hydrocephalus was operated on and drainage established through the fourth ventricle. The trephine was applied to the occipital bone in the mesial line a little above the foramen magnum; although the skull is particularly thick at this point, and the sinus in the falx cerebelli requires to be ligated, this is the easiest and most satisfactory approach to the fourth ventricle. The accumulation of cerebrospinal fluid in this case was due to adhesions between the two tonsils of

the cerebellum and the sides of the medulla, the separation of which was followed by the escape of the imprisoned fluid. In the subsequent course of the case a large quantity of cerebrospinal fluid escaped daily from the wound. The operation is one that should be given trial in cases of chronic basic meningitis of both the tuberculous and non-tuberculous varieties. Bruce and Stiles (Scottish Med. and Surg. Jour., March, 98).

HYSTERIA AND PELVIC DISEASE.

The psychical symptoms of hysteria are important to the gynæcologist. The patient is, as a rule, exceedingly impressionable. She is open to suggestion, especially as regards her pelvic condition. Hysteria is a psychoneurosis because of the prominence of these psychical manifestations. Neurasthenia may exist without pelvic disease. If both coexist they have no relation with each other. If pelvic disease exists with neurasthenia the pelvic symptoms become more marked because of increased irritability. Hysteria may exist without pelvic disease. The possibility is denied of nervous and mental disease arising from pelvic operations. The pelvic condition should be operated on for the local condition only, and not to relieve the nervous condition. In cases of profound hysteria an operation should never be undertaken unless the surgical condition is very urgent. The hysteria should first be cured in order to prevent the disastrous effects of the operation upon the nervous condition. The insanities are not due to local organic disease, but to disease of the neurons as a result of various derangements of tissue-metabolism. Pelvic operations will not cure insanity. F. X. Dercum (Med. News, June 25, '98).

INTESTINAL PERFORATION.

Diagnosis.—Ether as a means of diagnosis of intestinal perforations is more practical and better than hydrogen-gas, since it is always at hand, and necessitates no special apparatus, aside from what is already found in the surgeon's possession, and further, no objections can be given to its use on account of noxious properties, unfounded as these objections may be as to the hydrogen-gas. The quantity of ether being infinitesimal (1 drachm or less being sufficient to give up the necessary vapor, which is diluted many, many times by the air that carries it) absolute freedom from anæsthesia is assured. The method is simple: A small quantity of ether is poured into the bottle accompanying the aspirator of so-called French pattern. A soft-rubber catheter or rectal tube (preferably a long, glass douche-tube connected by rubber tubing) is jointed to one of the pipes of the aspirator-bottle. The air-pump is joined to the other pipe, and air forced into the bottle becomes mixed with ether-vapor and passes on through the alimentary canal, the rectal tube being inserted as far as necessary. This mixture, which may be called ether-air, rapidly finds its way through the coils of intestines, giving forth strong rumblings as it progresses onward, causing distension on entering the stomach, from whence it is belched, provided no perforation exists along its pathway. Upon reaching a perforation, however, the ether-air escapes into the peritoneal cavity, tympanites more rapidly develops, and upon dilating the wound-entrance down to the peritoneum, quickly comes out into the world, being at once recognized by its odor and the hissing sound of escaping gas. Upon opening the abdomen the distension of the intestine from the rectum up can

be followed to the point of injury where the same odor and hissing are noted and the wound repaired. Continuing the search till no more ether-air is found escaping from the intestines one may rely upon its efficacy. E. M. Sutton (Jour. Amer. Med. Assoc., July 23, '98).

KRYOPHINE.

Kryophine is produced by heating p-phenetidin with methoxyacetic acid to 248°-266° F.; it is tasteless and odorless; soluble in 600 parts of cold, 52 parts of boiling water; also in alcohol, ether, chloroform, glycerin, and fixed oils. Under its influence the pulse becomes fuller and stronger, with a disappearance of dicrotism. Abnormal temperature is reduced surely and promptly, in a marked degree, and extending over several hours of time, without rigor or depression, and rarely attended by diaphoresis. Blood-pressure is increased. Respiration is not affected. It is eliminated in about six hours, by the kidneys principally, although it does not affect diuresis, and may be found in the urine fifteen minutes after its ingestion. The rapid and more or less complete saponification by the stomach and intestinal juices is probably the secret of its power and the reason for its prompt action. It controls neuralgic pain in a marked and sometimes almost magical manner, and in some persons produces a tendency to sleep. For the average adult 8 grains seems to be the dose giving best results, and is best given in powdered form, dry, upon the tongue. The tablets are not advisable until first pulverized. John H. Curtis (Therapeutic Gazette, May, '98).

MEASLES.

Diagnosis.—The Koplik spots are round, slightly raised, bluish-white efflorescences, having minute red centres. They measure from 0.01 to 0.03 inch in diameter and are situated upon the inner surfaces of the cheeks, less often upon the mucous membrane of the lips, and rarely (in one instance) upon the tongue. They may occur on one or both sides, most often in the vicinity of the back teeth, and the usual number is from six to twenty, though hundreds may be present. They may be seen in daylight, or by a strong incandescent light, but not by lamplight. These spots seldom run together and cannot be rubbed off. They usually make their appearance on the first or second day of the prodromal stage and increase in number until the skin eruption appears, when they remain without change for three or four days and then disappear. Slawyk (Deut. med. Woch., Apr. 28, '98).

MILK AS A CULTURE-MEDIUM.

The composition of milk makes it a nutritive medium for every germ whose biology is at present understood. An investigation carried on in Boston showed that when healthy cows, in a clean place, were carefully milked into a sterilized flask, the milk contained only 530 bacteria per cubic centimetre, but when the ordinary milk-pail is used and the milk is conducted in the common way, there were, on an average, 30,500 bacteria per cubic centimetre immediately after milking. It should be remembered that the germs of diphtheria, cholera, typhoid fever, and scarlet fever develop at ordinary room-temperature, and that such growth does not affect the gross appearance of the milk. J. W. Strickler (Phila. Med. Jour., July 9, '98).

MILK: ITS ABSORPTION *vs.* ITS DIGESTION.

Milk alone is sufficient to meet the needs of the body. Intravenous injec-

tion of fresh milk has been safely practiced, showing that the economy can assimilate it without previous digestion and absorption. Working on this theory, the author has adopted the following plan for the rapid absorption of milk without previous curdling and digestion. A number of hours after a meal (usually three or four) the food disappears from the stomach, with all gastric juice, and the mucous surface becomes alkaline. This is the "alkaline tide" of the stomach. If at this time milk, free from fat, fresh and alkaline, and at the temperature of the body, be taken, it will excite no secretion of gastric or pancreatic juice on account of its freedom from all irritant qualities, and it will, therefore, pass at once in an unaltered state into the absorbents and system. This saves nature much work and avoids the disturbances of coagulation. It enters the blood-current more quickly, and in no way disturbs the appetite for regular meals, even increasing the latter. Milk can thus be taken by patients who cannot take it with their meals. Bulkley (Phila. Med. Jour., July 2, '98).

MYXŒDEMA IN THE NEGRO.

Symptoms.—The existence of myxœdema among the black races has been universally denied, but there are myxœdemic conditions sometimes seen that exhibit a peculiar thickening of the skin, local in distribution, identical in all respects with that present in cases of sporadic cretinism in the Caucasian race, but less diffuse in character. In 7 cases the thyroid gland was either not palpable, or below normal in size; in one case it was enlarged. The hair showed alteration in two cases, being coarse, thin and rough. The bones were abnormally broad in one case; the secretions of the skin were normal; even over the myxœdematous areas there was little of the dryness and roughness usually characteristic of the disease. The features were broadened and rendered coarse in two cases, the abdomen pendulous in one. The blood was carefully examined, but no abnormalities were found in the shape or diameter of the red corpuscles in any case.

Treatment. — The excretion of urea rose to about the normal in nearly all under thyroid administration, while previously it had been below the normal. In four cases the administration of dry thyroid gland removed the jelly-like thickenings of the skin, proving fairly conclusive that the swellings were of the same general nature as myxœdema; and all the cases improved mentally during the period of administration. Berkley (Amer. Jour. Insan., April, '98).

NEURASTHENIA.

Etiology.—The disorders of woman's pelvic organs have no more to do with her nervous and mental diseases than lesions elsewhere in her body; indeed, they have less to do with her psychoses and neuroses than most of her other organs, for, as in the male sex, the chief causes of their neuropsychoses are to be sought in intrinsic disorders of the nervous system itself, or in perverted nutrition of the nervous system dependent upon affections of the gastro-intestinal tract, kidneys, liver, lungs, heart, etc., and upon pathological blood states. It is true that puberty, adolescence, the puerperium, menstruation, and the menopause are often closely related to the outbreak or to the exacerbation of many nervous and mental disorders, but the pelvic organs themselves play but a small rôle in these physiological commotions. They have to do with the whole organism of woman. It is not denied

that pelvic diseases in women attended by exhausting pain may give rise to neurasthenic and hysterical states, but the influence of exhausting pain in these organs is no greater than similar exhausting pain elsewhere in the body. Nor is it denied that disorders of the female organs which affect the nutrition of the nervous system, such as excessive hæmorrhage, or suppurative processes, may be important factors in inducing functional neurosis and even insanity, though disordered blood states brought about by pelvic disease are very infrequent as compared with disordered blood states dependent upon disease elsewhere. There is no evidence whatever to support the opinion that insanity was ever due to a mere reflex influence from pelvic disease. In insanity the two great etiological factors are hereditary instability and some physical or moral stress directly affecting the nervous system. There has never been brought forward any evidence whatever to show that either epilepsy or chorea can be induced by disease of the female organs. Frederick Peterson (Annals of Gynecology and Pediatry, Aug., '98).

OPHTHALMIA NEONATORUM.

In the twenty-five largest cities of the United States the proportion of the blind is, with two exceptions, smaller than in the States in which these cities are situated, or, taking all the cities of more than 50,000 inhabitants together, about 33 per cent. less blind are found in them than the average for the entire country. When the different factors in the production of blindness are examined, whether congenital or acquired, or, under the latter class, whether due to traumatism, general disease, or to local disease, these factors are all practically the same, or are made equal in city and country, with one exception, namely, ophthalmia of infancy. A rather extended inquiry concerning the habitual practice of physicians in country almhouses, in hospitals and elsewhere in the State of New York indicates that more attention is given to guarding against ophthalmia of infancy in the cities than in the country. The tendency to the habitual neglect of prophylaxis tends to make a rapid difference in the distribution of the blind, estimated at possibly 14 to 1. It is at least the most apparent cause of this difference and probably accounts for the greater part of it. It follows from this apparently warrantable conclusion that if as great care were taken in general throughout the country as is given on the average in the cities to prophylaxis the number of blind in the United States would be decreased in a single generation by several thousands. Lucien Howe (Med. News, Aug. 6, '98).

PEMPHIGUS.

Treatment.—In the treatment of pemphigus vulgaris no reliance can be placed on the specifics; arsenic and quinine with tonics can be used with some hope of doing good. The arsenic should be used in the form of Fowler's solution, commencing with small doses and gradually increasing to tolerance. Quinine should be given in large doses, 20 to 30 grains every second or third day. Tonics in general should be given, such as cod-liver-oil, malt, iron, strychnine, etc., to improve the lowered vitality of the patient. Local treatment is of great importance; constant baths with the use of mild ointment, with vaselin as a base, and bismuth subnitrate, aristol, and oxide of zinc as constituents. In a disease like pemphigus, where the patient is more or less flayed, the hot bath

offers a medium in which the patient can live without such anguish as constantly tortures him, and with a greater chance of recovery. Very little true absorption of the water or the substance contained in it takes place in the bath, but a certain amount of the imbibition of the water and substances contained therein may occur. The baths should be given every day, or two or three times daily, if necessary to give the patient comfort; after the bath he should be anointed with a mild paste, of the formula before mentioned, enveloped in absorbent cotton, same being held in place by roller bandages. The temperature of the bath should be about 90° F., the patient should be immersed from one-half to two hours, and plenty of Castile soap used, so that the superficial layers of the epidermis should be cleansed, thereby favoring imbibition. The temperature of the bath should be kept up by the addition of hot water, and the room in which the patient takes his bath kept at an even warmth. A patient should not be put into a bath after a hearty meal; the best time to give the bath is in the afternoon between 3 and 6 o'clock. Secretion from the bullæ should be tested, and if it is found to be neutral, simple hot bath to be given; if acid, an alkaline bath, made so by the addition of 4 ounces of bicarbonate of soda to 30 gallons of water. If alkaline, an acid bath is given, made so by the addition of $1\,^1/_2$ ounces of nitric acid and 1 ounce of hydrochloric acid to 30 gallons of water. The daily diet should be highly nourishing; general hygienic measures and good ventilation should be observed. Formaldehyde fumigation is followed by success; two burners generally used twice a day; this is as long as can be comfortably borne by the patient. They soon become accustomed to its use; the first day they will allow the lamp to burn about ten minutes; by the end of the first week one to two hours. The large-size bullæ had best be opened at the most dependent portion and the fluid allowed to escape. R. P. Izlar (Georgia Jour. of Med. and Surg., Aug., '98).

New Books and Monographs Received.

The editor begs to acknowledge with thanks the receipt of the following books and monographs :—

Does the Theory that Typhoid Fever can be Aborted Conflict with Any Established Law of Pathology or with Any Known Scientific Fact? By John Eliot Woodbridge, M.D., Cleveland, Ohio, 1898.——Renal Suppuration, Catarrhal, Specific, and Traumatic, and the value of Micro-urinalysis of the Urinary Sediment as an Aid to Definite Diagnosis of It. By Thomas H. Manley, M.D., New York City, 1897.——A Clinical Study of Kryofine. By Sidney V. Haas, M.D., and J. Bennett Morrison, M.D., New York City, 1898. The Production and Sale of Antitoxin by the New York Board of Health. By A. M. Phelps, M.D., New York, 1898.——An Exhibition of Radiographs, with Remarks. By A. V. L. Brokaw, M.D., St. Louis, Mo., 1897.——Some Conclusions Drawn from Experiences in Pelvic Surgery. By A. V. L. Brokaw, M.D., St. Louis, Mo.——Transactions of the Section on Ophthalmology: College of Physicians of Philadelphia. March 15 and April 19, 1898.——Forest-growth and Sheep-grazing in the Cascade Mountains of Oregon. By Frederick V. Colville. U. S. Department of Agriculture, 1898.——

Our Trade with Spain, 1888-1897. Prepared by Frank H. Hitchcock. U. S. Department of Agriculture, 1898.——The San Jose Scale in 1896-1897. By L. O. Howard. U. S. Department of Agriculture, 1898.——Spain's Foreign Trade. Prepared by Frank H. Hitchcock. U. S. Department of Agriculture, 1898.——The Inspection of Meats for Animal Parasites. Prepared under the direction of Dr. D. E. Salmon. U. S. Department of Agriculture, 1898.——Final Report of the Crops of 1897. U. S. Department of Agriculture, 1898.——Report of the Public Education Association of Philadelphia Made at the Seventeenth Annual Meeting, 1898. ——The Grain-smuts: How They are Caused and How to Prevent Them. By Walter T. Swingle. U. S. Department of Agriculture, 1898.——Cattle-ranges of the Southwest. By H. L. Bentley. U. S. Department of Agriculture, 1898.—— Epidemic Cerebro-spinal Meningitis and its Relation to the Other Forms of Meningitis. A Report of the State Board of Health of Massachusetts, 1898.——Report of the Health Department of the City and County of San Francisco for the Fiscal Year Ending June 30, 1897.——Farmakodynamiska Studier A Det Isolerade Och Ofverlefvande Däggdjurshjartat af Karl Hedbom. Upsala, 1896.——Ueber Giftige Eiweisse Welche Blutkorperchen Verkleben. Von M. Elfstrand, Upsala, 1897.—— Arsberättelse Fran Sabbatsbergs Sjukhus. 1 Stockholm för 1895-'96. By Dr. F. W. Warfvinge, Stockholm, 1898.——A proposito della cura dell'ozena col siero antidifterico, 1898.——Discorso del Prof. Vittorio Grazzi all a inaugurazione del Terzo Congresso della Societa Italiana do Laringologia, Otologia, e Rinologia, avvenuta nell a R. Università di Roma la mattina del 28 Ottobre, 1897.——Di Una Grave Complicazione Avvenuta Dopo l'Asportazione di un Papilloma della Laringe per il Prof. Vittorio Grazzi, Florence, 1897.——Note Oto-rino-laringologiche. By Prof. Vittorio Grazzi, Florence, 1898.——Sur le Traitement des Sinusites. By E. J. Moure, Bordeaux, 1897.——Sur un Cas de Surdite Complete a la Suite d'une Meningite Aigue par Diplococcus de Fraenkel et presentation de la Malade. By Prof. Vittorio Grazzi, Florence, 1897.——Post-febrile Insanity. By Alexander L. Hodgdon, M.D., Baltimore, 1897.——Notes on the Pathology and Bacteriology of Appendicitis. By Chas. F. Craig, M.D., Danbury, Conn., 1897.—— The Bacteriology of Epidemic Carotitis, with Description of a Diplo-Bacillus Found in the Blood and Urine. By Chas. F. Craig, M.D., Danbury, Conn., 1898.——The Branched Form of the Bacillus Tuberculosis in Sputum. By Chas. F. Craig, M.D., Danbury, Conn., 1898.——The Centrifuge as an Aid in Diagnosis. By Chas. F. Craig, M.D., Danbury, Conn., 1898.——Sanitarium Treatment of Pulmonary Tuberculosis. By J. Edward Stubbert, M.D., Liberty, N. Y., 1898.——The First Recognized Case of Yellow Fever in Mobile in 1897, with Comments and Deductions. By Edwin L. Maréchal, M.D., Mobile, Ala., 1898.——The Treatment of Diphtheria with Diphtheria Antitoxin. By Edwin Rosenthal, M.D., Philadelphia, Pa., 1895.——The Influence of Antitoxine in the Treatment of Laryngeal Diphtheria With and Without Intubation. By Edwin Rosenthal, Philadelphia, Pa., 1898.—— Injuries to the New Born in Cross, Complex and Breech Presentation. By Edwin Rosenthal, M.D., Philadelphia, Pa., 1898.——Uterine Moles. By Edwin Rosenthal, M.D., Philadelphia, Pa., 1898.——Serum Therapy in Diphtheria. By Edwin Rosenthal, M.D., Philadelphia, Pa., 1896.——Etiology, Prevalence and Treatment of Hysteria. By U. O. B. Wingate, M.D., M.M.S.S., Milwaukee, 1898.——Physical Characteristics of Ten Thousand Men. By Lt.-Col. Charles Adams, Chicago, Ill., 1898. ——The Essential of the Art of Medicine. By J. H. Musser, M.D., Philadelphia, Pa., 1898.——The Diagnostic Importance of Fever in Late Syphilis. By J. H. Musser, M.D., Philadelphia, Pa., 1892.——Renal Calculus. By J. H. Musser, M.D., Philadelphia, Pa., 1898.——Symposium on the Pathology of the Diseases of the Cardio-Vascular System. By J. H. Musser, M D., and J. D. Steele, M.D., Philadelphia, Pa., 1898.——The Prevention of Diseases now Preying upon the Medical Profession. By Leartus Connor, A.M., M.D., Detroit, Mich., 1898.——Address of the President. By W. Murray Weidman, M.D., Reading, Pa., 1898.——A

Report upon the Grasses and Forage Plants and Forage Conditions of the Eastern Rocky Mountain Region. By Thomas A. Williams, "U. S. Department of Agriculture," 1898.——Yellow Fever: Its Nature, Diagnosis, Treatment, and Prophylaxis, and Quarantine Regulations Relating Thereto. By Officers of the U. S. Marine Hospital Service. Prepared under Direction of the Supervising Surgeon-General, 1898.

EDITORIAL STAFF.

ASSOCIATE EDITORS.

(List Revised August 1, 1898.)

J. GEORGE ADAMI, M.D.,
MONTREAL, P. Q.

LEWIS H. ADLER, M.D.,
PHILADELPHIA.

JAMES M. ANDERS, M.D., LL.D.,
PHILADELPHIA.

G. APOSTOLI, M.D.,
PARIS, FRANCE.

A. D. BLACKADER, M.D.,
MONTREAL, P. Q.

E. D. BONDURANT, M.D.,
MOBILE, ALA.

DAVID BOVAIRD, M.D.,
NEW YORK CITY.

L. BROCQ, M.D.,
PARIS, FRANCE.

WILLIAM BROWNING, M.D.,
BROOKLYN, N. Y.

WILLIAM T. BULL, M.D.,
NEW YORK CITY.

CHARLES W. BURR, M.D.,
PHILADELPHIA.

DUDLEY W. BUXTON, M.D., M.R.C.P.
LONDON, ENGLAND.

HENRY T. BYFORD, M.D.,
CHICAGO, ILL.

J. ABBOTT CANTRELL, M.D.,
PHILADELPHIA.

WILLIAM B. COLEY, M.D.,
NEW YORK CITY.

P. S. CONNER, M.D., LL.D.,
CINCINNATI, OHIO.

FLOYD M. CRANDALL, M.D.,
NEW YORK CITY.

ANDREW F. CURRIER, M.D.,
NEW YORK CITY.

JUDSON DALAND, M.D.,
PHILADELPHIA.

N. S. DAVIS, M.D.,
CHICAGO, ILL.

F. EKLUND, M.D.,
STOCKHOLM, SWEDEN.

AUGUSTUS A. ESHNER, M.D.,
PHILADELPHIA.

J. T. ESKRIDGE, M.D.,
DENVER, COL.

CHRISTIAN FENGER, M.D.,
CHICAGO, ILL.

SIMON FLEXNER, M.D.,
BALTIMORE, MD.

LEONARD FREEMAN, M.D.,
DENVER, COL.

S. G. GANT, M.D.,
KANSAS CITY, MO.

J. McFADDEN GASTON, M.D.,
ATLANTA, GA.

J. E. GRAHAM, M.D.,
TORONTO, ONT.

JULES GRAND, M.D.,
PARIS, FRANCE.

EGBERT H. GRANDIN, M.D.,
NEW YORK CITY.

LANDON CARTER GRAY, M.D.,
NEW YORK CITY.

J. P. CROZER GRIFFITH, M.D.,
PHILADELPHIA.

A. GOUGUENHEIM, M.D.,
PARIS, FRANCE.

C. M. HAY, M.D.,
PHILADELPHIA.

FREDERICK P. HENRY, M.D.,
PHILADELPHIA.

EDWARD JACKSON, M.D.,
DENVER, COL.

NORMAN KERR, M.D., F.L.S.,
LONDON, ENGLAND.

EDWARD L. KEYES, JR., M.D.,
NEW YORK CITY.

H. KRAUSE, M.D.,
BERLIN, GERMANY.

E. LANDOLT, M.D.,
PARIS, FRANCE.

ERNEST LAPLACE, M.D., LL.D.,
PHILADELPHIA.

R. LÉPINE, M.D.,
LYONS, FRANCE.

F. LEVISON, M.D.,
COPENHAGEN, DENMARK.

A. LUTAUD, M.D.,
PARIS, FRANCE.

F. MASSEI, M.D.,
NAPLES, ITALY.

E. E. MONTGOMERY, M.D.,
PHILADELPHIA.

JULES MOREL, M.D.,
GHENT, BELGIUM.

HOLGER MYGIND, M.D.,
COPENHAGEN, DENMARK.

W. P. NORTHRUP, M.D.,
NEW YORK CITY.

H. OBERSTEINER, M.D.,
VIENNA, AUSTRIA.

CHARLES A. OLIVER, M.D.,
PHILADELPHIA.

WILLIAM OSLER, M.D.,
BALTIMORE, MD.

F. A. PACKARD, M.D.,
PHILADELPHIA.

LEWIS S. PILCHER, M.D.,
BROOKLYN, N. Y.

WILLIAM CAMPBELL POSEY, M.D.,
PHILADELPHIA.

W. B. PRITCHARD, M.D.,
NEW YORK CITY.

JAMES J. PUTNAM, M.D.,
BOSTON.

GEORGE H. ROHÉ, M.D.,
SYKESVILLE, MD.

ALFRED RUBINO, M.D.,
NAPLES, ITALY.

LEWIS A. SAYRE, M.D.,
NEW YORK CITY.

REGINALD H. SAYRE, M.D.,
NEW YORK CITY.

SOLOMON SOLIS-COHEN, M.D.,
PHILADELPHIA.

H. W. STELWAGON, M.D.,
PHILADELPHIA.

D. D. STEWART, M.D.,
PHILADELPHIA.

LEWIS A. STIMSON, M.D.,
NEW YORK CITY.

G. ARCHIE STOCKWELL, M.D.,
NEW YORK CITY.

B. J. STOKVIS, M.D.,
AMSTERDAM, HOLLAND.

LOUIS McLANE TIFFANY, M.D.,
BALTIMORE, MD.

CHARLES S. TURNBULL, M.D.,
PHILADELPHIA.

HERMAN F. VICKERY, M.D.,
BOSTON, MASS.

RIDGELY B. WARFIELD, M.D.,
BALTIMORE, MD.

F. E. WAXHAM, M.D.,
DENVER, COL.

J. WILLIAM WHITE, M.D.,
PHILADELPHIA.

W. NORTON WHITNEY, M.D.,
TOKIO, JAPAN.

JAMES C. WILSON, M.D.,
PHILADELPHIA.

C. SUMNER WITHERSTINE, M.D.,
PHILADELPHIA.

WALTER WYMAN, M.D.,
WASHINGTON, D. C.

NOTES AND COMMENTS.

THE F. A. DAVIS COMPANY, Publishers. GEO. B. CREVELING, Business Manager.

General Greely's 278 Days of Death.—The true story of those 278 days of suffering by Greely's heroic little band of explorers in the Arctic region has been told by General Greely himself, for the first time, for the October Ladies' Home Journal. For years General Greely has kept an unbroken silence about his fearful experience and that of his companions, as they dropped dead one by one at his side, and it was only after the greatest persuasion that the famous explorer was induced to write the story.

The Battle-Creek Sanitarium.—This institution, under the able superintendence of Dr. J. H. Kellogg, is known throughout the country for the completeness of its equipment as well as the numerous scientific and clinical investigations which are carried out within its walls. It has the advantage over many hospitals in being amply provided with conveniences for the utilization of physiological in addition to the ordinary medicinal remedies. The location and surroundings of the sanitarium are extremely pleasant.

Wet Dressings in Surgery.—From an interesting paper of the above title presented to the section on Surgery and Anatomy at the Denver meeting of the American Medical Association we reproduce the following passages:—

"It is clear that to carry out the idea of a practical dressing it must be:—

"1. Antiseptic. This applies not only to the effect of the application to the part, but to the corporate substance itself.

"2. Permanent. This is necessary in order to avoid too frequent removals as well as to preserve itself from deterioration.

"3. Non-irritating. There is nothing more delicate, more easily disturbed than the formative principles of tissue; so that care must be taken in the dressing of all lesions of surface lest the agents used should arrest the tender process of repair, as well as protect it from the invasion of destructive germs.

"4. Constructive. While the majority of lesions, especially those of traumatic origin, if not interfered with by destructive germs will heal rapidly of themselves, there are very many which require not only this negative condition, but also a positive stimulation of function in the constructive elements of the part."

The fulfillment of these conditions has been the aim of the surgical pharmacist, but it was to Sir Astley Cooper that the credit is due for his foreseeing therapy leaping over, as it were, the dark chasm which separated the triumphs of his surgical genius from the science-illumined land of modern surgical pathology. It was he who, without the knowledge of the bacteriological factor in the great problem of surgical treatment, by the intuition of genius gave to us the essential principles of external dressing for surface-lesions. His formula, however, was open to the objection of violating one of the conditions herein laid down—that of permanence—in that lard was used instead of petrolatum, which has been since discovered and is now substituted in the

Notes and Comments (continued).

preparation known as unguentine, which is an ideal formula constructed along the lines of that suggested by Sir Astley Cooper, but altered to the conditions of modern aseptic surgery. The irritating effects of the ordinary alum has also in some way been obviated, furnishing thus a typical dressing for surface-lesions. We are free to admit that for all external dressings we have found the highest fulfillment of modern aseptic or antiseptic surgery in the preparation just mentioned.

The Blood is the Life.—The purity of the circulating fluid is the prime necessity of normal and healthy nutrition. Sooner or later, more or less severely, the different organs and tissues of the body suffer when the blood is impoverished or contaminated. In anæmia, in many forms of wasting and inflammatory diseases and in those which diminish assimilation experience has taught the benefit of supplying blood itself directly to the system. This is accomplished by means of bovinine, which is pure and unaltered blood from the arteries of the bullock. Bovinine can be administered by the mouth, rectum, or subcutaneous injection. Sprayed upon the mucous membrane and followed by hydrogen dioxide it is serviceable in catarrhal diseases of the air-passages and diphtheria.

Ye Surgeons.—Judging from frequent reports in current medical literature Lysol is being extensively used by many of our well-known surgeons. The saponaceous character of its solution is very advantageous in many cases, rendering a special surgical soap unnecessary in preparation for operations. It is a non-toxic antiseptic, soluble in water, and is especially used in gynæcology for intra-uterine irrigation after curettage (Prof. Augustin H. Goelet, School of Clinical Medicine, New York), and is not caustic like carbolic acid and preferred to it as well as to bichloride of mercury for vaginal douches in obstetrics (Dr. Mary H. McLean), and for cleaning lacerated wounds and contusions (Dr. E. O. Plumbe, "Railway-surgeon," April, 1898). It is used in $^1/_2$ per cent. to 1 per cent. solutions in water. ("Notes on New Remedies.")

Epilepsy.—The Tilden Co., St. Louis, Mo. Dear Sirs:—Inclosed find post-office money-order for $1.00. Please send by return mail one ounce tablets of hydrocyanate of iron and valerian. My case of epilepsy is doing fine, has had no trouble for the past three months, and appears as well as he ever was. Works hard every day on hay-bales, tying and lifting heavy bales of hay. Will send full history of case when we get through if you desire it. Respectfully, F. E. Wilson, Westminster, Cal., August 11, 1898.

"A New Created World."—If you leave home for the summer, go where you will find almost literally a new world. Such a spot is Yellowstone Park. There is no place like it in the world. You will be astonished at what you see and learn there. A month's outing in those mountains 7000 feet above the sea-level, in an atmosphere pure and invigorating, would add years to your life. There are four modern hotels, good roads—maintained by the United States Government—for riding, driving or cycling; riding-horses and pack-trains. Geysers, canyons, mud-springs, lakes, cataracts, and cascades in large number are crowded into a space 54 by 62 miles

Notes and Comments (continued).

in size. If you can afford it, you wrong yourself by not going there, especially if you are a patriotic American. If you cannot afford it, then go to beautiful Leech Lake in Minnesota, a new and popular resort. New hotels, fine fishing and hunting, and good boating at reasonable rates. Send Charles S. Fee, of Northern Pacific Railway, St. Paul, Minn., six cents for Wonderland, '98, that describes by pen and picture both resorts. Mention where advertisement was seen.

Validol.—The above is the title of a new perparation introduced by Dr. George Schwersenski, of Berlin, who has described its properties and uses in an article published in the Therapeutische Monatshefte. Validol is a chemically-pure combination of menthol and valerianic acid. It contains a proportion of free menthol, which adds to the stimulant effect. Validol is a clear, colorless liquid with a consistence similar to that of glycerin. It has an agreeable odor and a cool, slightly-bitter taste. This fluid will hold any amount of menthol in solution, and therefore the latter can be administered in any required dose. Validol, containing 30 per cent. of free menthol, answers most requirements. As a rule, 10 to 15 drops of validol given daily once or oftener according to the severity of the case will be sufficient. This preparation has proved an excellent remedy in hysteria and neurasthenia. As a stomachic validol removes nausea and malaise and promotes the appetite. It seems to be useful also as a carminative.

Prof. Gennaro Scognamiglio, of Naples, has given validol with much satisfaction in seasickness, in which he considers it to have both specific and prophylactic properties.

Validol is manufactured by the Vereinigte Chininfabriken Zimmer and Co., of Frankfort-on-the-Main, Germany (and sold by R. W. Phair & Co., New York City).

The Omaha Exposition. — When the World's Fair at Chicago ceased to exist, it was supposed that we should ne'er look upon its like again. However, the Trans-Mississippi Exposition at Omaha has effectively reproduced in similarity all of the buildings which made the White City so attractive in 1893.

It does not now take weeks to wander through grounds and structures and then be compelled to go away with a jumble of ideas, for the Omaha Exposition people have profited by past experience, and have so improved the arrangement

Notes and Comments (continued).

of exhibits that no more than two or three days of time need be consumed in admiration and inspection of the marvelous resources of the West, collected together in the chief city of Nebraska.

Even the new Midway is a reproduction of the far-famed Street of All Nations of 1893, with many improvements upon the original.

The electric lighting of the buildings, grounds, and lagoon at night makes a scene of enchanting beauty, alone worth traveling a thousand miles to see.

The means of communication between the city and the grounds are ample, and the distance to be traversed is short.

The ways of reaching Omaha are innumerable, but chief among them is the direct Chicago and Omaha short line of the Chicago, Malwaukee & St. Paul Railway, with its electric-lighted, vestibuled trains, leaving Chicago every night at 6.15 P.M., and arriving Omaha at 8.20 the next morning. Dining-car service *en route.*

Excursion-tickets are on sale at every coupon ticket office in the United States over the Chicago, Milwaukee & St. Paul Railway through Northern Illinois and

Notes and Comments (continued).

Central Iowa, as well as at 95 Adams St., and at the Union Passenger Station, Canal and Adams streets, Chicago.

The Action of Ze-an in Renal and Urinary Disorders.—The importance of the eliminative function of the kidneys cannot be overestimated. It is the complement to that of assimilation. The food may be rich in nutritive elements, but if the process of digestion be not thoroughly performed deleterious substances will accumulate in the blood. It is highly essential, therefore, that they should as speedily as possible be removed from the blood and system. The work of this elimination falls largely upon the kidneys. These delicate glandular organs are, in a state of health, amply competent to the task which nature has laid upon them and keep the blood free from impurities. When, through any cause or conjunction of causes waste-products are increased, the kidneys are stimulated to unusual or excessive efforts. This excess of functional activity reacts, in time, upon the structure of the organs. The cells of the kidneys undergo pathological alterations, and their efficiency is crippled or altogether destroyed. A vast series of morbid conditions is the consequence of this incompetency of the kidneys.

Many of the waste products which circulate in the blood are insoluble in watery fluids, and consequently as they pass out of the body in the urine they irritate the urinary organs. If they are deposited in the kidney they form calcareous concretions. If they gain the bladder before deposit they give rise to stone in the bladder. The passage of smaller particles as sand or gravel is a frequent cause of inflammation of the kidney or bladder.

Notes and Comments (continued).

Other organic compounds which are retained in the circulation when the kidneys are disabled lay the foundation of disease of the heart and blood-vessels. Another class of waste-products act as poisons to the cells of the nervous system.

In treating renal diseases, therefore, we must, in the first place, regulate the diet in such a manner that formation of noxious waste-products shall be reduced to a minimum. In the next place we must take measures to convert insoluble into soluble substances. If we decrease the production of insoluble bodies and if we sweep rapidly out of the system those whose generation we cannot prevent, we have evidently done much toward bringing about recovery. The third element of the problem is to soothe the irritability, congestion, or inflammation of the kidney or bladder.

A remedy which possesses many of the properties desirable in treating the disorders of which we have been speaking is corn-silk. It is a mild stimulant to the kidneys, a solvent for uric acid and phosphatic calculi and it also exerts a certain analgesic effect upon the entire urinary tract. The official preparations of corn-silk, however, labor under the disadvantage of containing an insufficient proportion of the active principle. For this reason ze-an is offered to the medical profession as an acceptable form in which to prescribe corn-silk. Ze-an is a pure and concentrated fluid extract of corn-silk. Its strength renders it efficient in drachm-doses.

By promoting the solution of gravel ze-an prevents the occurrence of those painful and exhausting attacks of renal colic which are caused by the passage of insoluble and, consequently, irritating particles along the ureter and into the

Notes and Comments (continued).

bladder. Continuing the same action the formation of stone in the bladder is likewise prevented.

The irritant action of gravel and stone upon the kidney and bladder gives rise to pain and inflammation in those organs and, in the kidney, the trouble not infrequently proceeds to suppuration. In renal congestion, nephritis, and pyelitis the valuable combination of properties present in corn-silk renders ze-an a reliable remedy. This preparation, for similar reasons, is equally serviceable in chronic cystitis whether due or not to the presence of a foreign body. Prostatis and urethritis are also relieved by the use of the same remedy. In fact, there is strong evidence to the efficacy of ze-an in acute gonorrhœa. This preparation has been administered with success in cases of nocturnal incontinence of urine.

The diuretic properties of ze-an have been both experimentally and clinically proved. The remedy is serviceable in dropsy dependent upon either cardiac or renal disease. By removing the transudation ze-an acts indirectly as a tonic to the heart.

Karozza: Ethics of Marriage. By Alice B. Stockham, M.D., author of "Tokology." Published by Alice B. Stockham & Co., 277 Madison Street, Chicago. Special price to physicians, $1.00, prepaid.

This work was written from years of professional experience to meet a demand among inquiring women on subjects deeply concerning the physical life of the wife and mother. It elucidates the theory of conjugal life on a peculiar subject, and states plain facts in plain language, and will be interesting reading to many who hold to the Malthusian doctrine, and the legitimate limitation of families. Sent, postage paid, on the receipt of price to the publishers.

American Tapestry Decorative Company.—The firm of John F. Douthitt, 286 Fifth Avenue, New York, carries on a large decorative business in many directions. Tapestry materials, goblin-printed burlaps, and goblin art drapery are among the firm's products. The company will send books and illustrations of their goods for the benefit of those interested in artistic decoration. In connection with the business a school is also maintained in which tapestry-painting lessons are given. Complete written instructions will be sent by mail.

Kryofine.—Kryofine is an efficient agent in reducing fever and alleviating pain. Not only does it lower a febrile temperature, but, if given prior to the usual time of a rise of the curve, it prevents the expected ascent. In typhoid fever and influenza it has been used with very satisfactory results. In rheumatic fever it is doubly valuable on account of its effect both on the temperature and pain. Kryofine is a valuable remedy in the various forms of neuralgia. It has been employed with advantage also in polyneuritis.

maker, whose great work on "Materia Medica and Therapeutics," now in its Fourth Edition, and used in a hundred colleges, is known and read all over the English-speaking world. This portion of the "**Bulletin**" alone, published in book form, would comprise a "Formulary" far in advance of many on the market, whose price is double that which has been charged the fortunate subscribers to the "Bulletin." It has kept its readers fully informed as to college and society happenings; has given hundreds of timely hints, which have been of great service to its readers. Has published a series of articles relating to that great "American Riviera," the "West Coast of Florida," that has been of incalculable service to its readers in aiding them to intelligently advise their consumptive and rheumatic patients upon economic as well as hygienic topics.

It has given its readers no less than 350,000 words of matter equal to the usual contents of a 700-page book, selling at an average price of $4.00, as, for instance, that excellent book: Gray, **on Nervous Diseases.**

But the "**Bulletin**" purposes to do even more during the coming year, and in addition give its friends an opportunity seldom equaled in journalism.

Old subscribers can have their subscriptions advanced in availing themselves of this splendid offer. New subscribers can have their subscriptions begin with the first of January, 1899, or sooner if they prefer. **Whether you are an old or a new subscriber all you have to do is to send us cash to the amount of $1.75 and promptly receive a copy of Drs. Grandin and Jarman's "Obstetric Surgery" and the "Bulletin" will be sent you regularly for one year.**

It is important to act promptly; therefore we urge your sending your subscription immediately with P. O. or Express Money-Order, or check, to

THE F. A. DAVIS COMPANY, Medical Publishers,

1914 and 1916 Cherry Street, Philadelphia, Pa.

SPECIAL ORDER BLANK.

FILL THIS OUT AND MAIL IT, WITH $1.75, TO THE PUBLISHERS,

THE F. A. DAVIS COMPANY,
1914 and 1916 Cherry Street, Philadelphia.

Gentlemen: Enclosed find One Dollar and Seventy-five Cents ($1.75), for which please send me, all carriage charges prepaid, a copy of "**OBSTETRIC SURGERY,**" *by* DRS. GRANDIN and JARMAN, *Complete, Bound in Extra Cloth (Regular price, $2.50 net), and* "**THE MEDICAL BULLETIN**" *(regular subscription-price, $1.00 per year) for one year, as per your Premium Offer for the months of August and September, 1898.*

Name _____

P. O. Address _____

County _____

State _____

P. S.—Upon the reverse side of this announcement will be found a specimen page of Grandin and Jarman's "Obstetric Surgery."

As the cord comes down it is to be drawn upon from the *placental* side, and if it is over one of the legs it must be released (Fig. 53) and placed in the most favorable position as regards pressure. In rare instances it will be impossible to draw the cord down without making undue traction. If such should prove to be the case, it should be secured by means of two artery-clamps and cut. Of course, if this is done, it will be necessary to hasten the delivery as much as possible.

When the scapulæ appear the arms must be liberated before extraction is continued. Under favorable circumstances, —that is, if the assistant has kept up intelligent pressure on the fundus, or if the cervix was fully dilated previous to the

Fig. 53.—Method of Releasing the Cord.

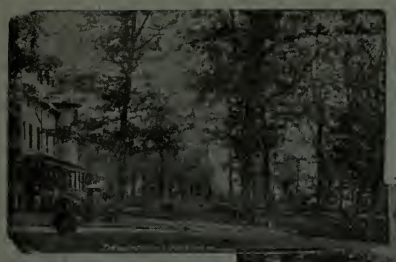
version, or if the operator has not made traction in too rapid a manner,—the arms will be folded on the chest and their extraction will be easy.

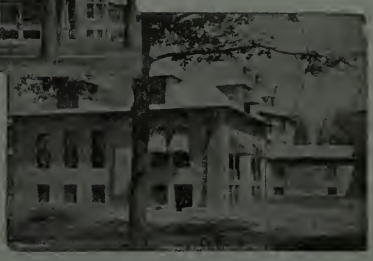
Even in the hands of the best operators and with the best assistants the arms sometimes become unavoidably extended. Although their extraction must be accomplished in as rapid a manner as possible, there is no need of breaking the arm if care is taken.

The arm which is to the rear is usually more easily liberated. To do this the operator seizes the legs with one hand and carries the child's body well upward. This will cause the posterior shoulder to be more readily reached, and will permit more room for the manipulations necessary. Two fingers of

Oak Grove Hospital

For Nervous and Mental Diseases.





Grounds comprise sixty acres of stately oaks and are picturesque and secluded. Buildings roomy, homelike, free from institutional features, and erected with especial reference to the care of nervous and mental invalids.

Interiors Bright and Cheerful, Luxurious Furnishings, Superior Appointments, Skilled Attendance, First-class Cuisine.

Equipment for hydrotherapeutic and electrical treatment complete and modern—Static, Galvanic, and Faradic Apparatus, Electric Bath, Turkish and Russian Baths, and Massage. Noyes Amusement Hall in connection with the Hospital, containing gymnasium, billiard-room, bowling-alley, hall for assemblies, sitting-room, lounging-room, and library, furnishes ideal facilities for in-door sports and diversion. Carriages for the daily use of patients free. For terms, address

Dr. C. B. BURR, Medical Director,
FLINT, MICH.

RICH RED BLOOD

OR BLOOD RICHNESS

Is the main desideratum in many cases. Richness of the circulating fluid in those important basic elements of vitality—**hæmoglobin** and **oxygen.**

Pepto-Mangan ("Gude")

INFUSES THIS DESIRABLE RICHNESS IN CASES OF

ANÆMIA, CHLOROSIS, AMENORRHŒA, DYSMENORRHŒA, RICKETS, BRIGHT'S DISEASE, Etc.,

By furnishing these necessary **hæmoglobin-making** and **oxygen-carrying elements**—**Iron** and **Manganese**—in a form for almost immediate absorption. Both repeated "blood counts" and clinical experience go to prove this statement.

PEPTO-MANGAN "GUDE" is put up only in bottles holding ℥ xi.

Prescribe original packages, Doctor, and thus avoid substitution. **NEVER SOLD IN BULK.**
Samples and literature upon application.

M. J. BREITENBACH COMPANY, Sole Agents for U. S. and Canada,
56 & 58 WARREN ST., NEW YORK.

LABORATORY,
LEIPZIG, GERMANY.